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ABSTRACT

This three-volume report provides a comprehensive picture of the vocational education and training (VET) system in Australia, its key policies, initiatives undertaken, and achievements during 1999. This publication contains volume 3, which presents a detailed statistical report against the key performance measures for the VET system. Volumes 1 and 2 are combined in a single publication and available separately. This report has five sections. Part A, "At a Glance," provides an executive summary of the main findings in the report. Part B, "Introduction," considers the context of VET in Australia and sets the scene for measuring the performance of the system. Part C, "Key Performance Measures," reports performance against these eight key performance measures: skill outputs produced annually within the domain of formally recognized VET; stocks of VET skills against desired levels; employer views on VET; student outcomes from VET; VET participation, outputs, and outcomes achieved by client groups; public expenditure per publicly funded output; public expenditure per total recognized output; and total expenditure on VET. Part D, "Appendix," contains technical notes and details on specific issues that arise in relation to the use of data and to the application of calculations and adjustments necessary to make the data more comparable and consistent. Part E, "Glossary," defines terms. (YLB)

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OF THE AUSTRALIAN VOCATIONAL EDUCATION AND TRAINING SYSTEM

Volume 3 • Vocational Education & Training Performance

AUSTRALIAN NATIONAL TRAINING AUTHORITY

Enquiries regarding this report should be directed to:

Australian National Training Authority
GPO Box 3120 Brisbane Qld 4001 Australia
Telephone: (07) 3246 2300

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PREFACE

This is the fifth report on the performance of the vocational education and training system in Australia by the Australian National Training Authority (ANTA). The report represents the collaborative effort of all the system's stakeholders in identifying areas of progress and achievement during 1999, as well as those aspects in need of further improvement.

This report comes at a time of transition in two key areas.

The first is the phased introduction of new arrangements for meeting industry skills needs, through national Training Packages. These are being progressively implemented from the beginning of 1999. The second is the move to a more refined set of key performance measures, which have been agreed by State, Territory and Commonwealth ministers, and will be reported fully in 2002, for 2001 training activity.

The adoption of these measures has required changes to the way in which management information is collected. The national information program has been revised to collect the necessary information relating to Training Package qualifications and units of competency from 1999. Furthermore, a specific project is currently under way, funded by ANTA, to ensure more complete reporting of the eligibility of individual students to receive a recognised qualification, and to assist providers in issuing qualifications to successful students.

It will take five years (from the beginning of the process in 1998) to fully implement the measures.

In the transitional period, this report uses a mix of old and new measures. This report attempts as far as possible to align the reporting of existing data under the new measures of performance. The text and notes for each key performance measure provide further information on transitional arrangements.

Key performance measures

Commonwealth, State and Territory Governments have agreed on eight key performance measures (KPMs) to apply to the national vocational education and training system.

The measures provide the means to:

- assess progress against the national strategy for Australia's vocational education and training system
- prompt improvements in vocational education and training products and services to clients
- demonstrate the value of vocational education and training to individuals, employers and the nation
- hold the system publicly accountable.

Key performance measures are not a new concept. However, in recent years much effort has been directed at improving performance measurement in the vocational education and training system. This has included improving the measures themselves, and improving the usefulness and accuracy of data used for the measures.

The national key performance measures are the highest-order performance measures applying to vocational education and training in Australia. Sitting below these measures are a set of agreed annual performance indicators that align with the annual national priorities for vocational education and training established for the year. In addition, States and Territories develop and apply their own

performance measures to assess the outcomes of their strategies and initiatives. Finally, the providers of vocational education often monitor their own performance and benchmark themselves against providers with similar characteristics.

The key performance measures have been developed through an extensive process involving governments and industry. The table below lists the agreed objectives for the national vocational education and training system, and describes each of the key performance measures developed by the Performance Review Committee of the ANTA Board.

The key performance measures will be reviewed with each new national strategy for vocational education and training.

Objectives for VET	KPMs for VET	What they Measure
1. Enhancing mobility in the labour market	1. Skill outputs produced annually within the domain of formally recognised VET	Contribution of VET system to Australia's skills pool and to labour mobility
2. Equipping Australians for the world of work	2. Stocks of VET skills against desired levels 3. Employers' views on the relevance of skills acquired through VET 4. Student employment outcomes and prospects before and after participation in VET	Size of Australia's VET skills pool and how well industry needs and those of the economy are being met by the VET system Relevance of training in the workplace Employment outcomes for students
3. Achieving equitable outcomes in VET	5. VET participation, outputs and outcomes achieved by client groups	How well the VET system is servicing particular groups in the Australian community
4. Maximising the value of public VET expenditure	6. (Actual) public expenditure per publicly funded output 7. (Actual) public expenditure per total recognised output	Efficiency of public dollar usage to generate skill output Extent to which public funds leverage private investments in training
5. Increasing investment in training	8. Total expenditure on training	Assessment of total expenditure on VET with respect to funding source

The structure of this report

This report has five sections.

Part A (At a Glance) provides an executive summary of the main findings in the report.

Part B (Introduction) considers the context of vocational education and training in Australia, and sets the scene for measuring the performance of the system.

Part C (Key performance measures) reports (appropriate to the transition period) performance against the eight key performance measures.

Part D (Appendix) contains technical notes and details on specific issues that arise in relation to the use of data and to the application of calculations and adjustments necessary to make the data more comparable and consistent.

Part E (Glossary) defines many of the terms used in the report.

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PART A: AT A GLANCE

1999

1999 at a glance.....

THE SYSTEM

Students	
Number of students doing publicly-funded vocational education and training	1.65 million
Increase over 1998	111,900 (+7.3%)
Percentage of 15-64 year old Australians doing publicly-funded vocational education and training	11.4%
Percentage of 15-19 year olds	23.0%
Percentage of 35-39 year olds	10.7%
Percentage of 55-64 year olds	3.9%
% of students who did less than 100 hours in 1999	50%
Percentage of part-time students	90%
Percentage of students living within 20k of their training provider	69.7%
Percentage of students living more than 100k from their training provider	9.3%
People who were unable to get into a vocational education and training course as a percentage of those who did.	3.6%

Socioeconomically speaking, students are almost an exact sample of the general population: the system is particularly effective in providing services to the full spectrum of Australians.

What students enrolled in	
AQF Certificate I	5.5%
AQF Certificate II	15.9%
AQF Certificate III	19.6%
AQF Certificate IV	10.1%
AQF Diploma or higher	12.2%
Other recognised courses	11.9%
Single modules	5.7%
Non-award courses	19.0%

What students studied	
Administration, business, economics, law	19.0%
Social, educational & employment skills	14.2%
Engineering, processing	13.1%
Mathematics, computing	11.1%
Hospitality, tourism, personal services	7.9%
Health sciences	7.5%
Humanities	7.3%
Built environment	5.4%
Visual/performing arts	4.7%
Agriculture, renewable resources	3.9%
Sciences	2.7%
Social studies	1.7%
Education	1.4%

Apprentices and trainees

There were record numbers of new apprenticeships and traineeships, and they aren't just for young people: numbers have grown strongly in all age groups.

	1998	1999
Total number of apprentices and trainees	193,800	255,600
Commencing number of apprentices and trainees	153,859	188,354
Commencements aged 15-24	98,434	114,101
Commencements aged 25-64	55,425	74,253

Providers

Publicly-funded vocational education and training was delivered by a diversity of training providers.

% of students enrolled with TAFE or other government providers	74.8%
% of students enrolled with community providers	14.3%
% of students enrolled with other registered providers	10.9%

KPM 1: SKILL OUTPUTS PRODUCED ANNUALLY WITHIN THE DOMAIN OF RECOGNISED VOCATIONAL EDUCATION AND TRAINING

Training packages & modules

This is the first year in which outputs against Training Package units of competency have been reported. This information is indicative only as the full range of Training Packages is yet to be implemented.

Number of Training Packages with student enrolments	36
Percentage of students enrolled in programs based on Training Packages	9.1%
Number of Training Package units in which students were assessed as competent	938,248
Total number of remaining modules passed by students	5,830,073

Results	
Percent of hours of assessable training that students passed	74.5%
Percent of students who passed 95% or more of their training	66.7%
Percent of students who passed 5% or less of their training	12.4%

Recognition of prior learning	
Percent of total training activity associated with the recognition of prior learning	2.8%

KPM 2: STOCKS OF VOCATIONAL EDUCATION & TRAINING SKILLS AGAINST DESIRED LEVELS

The economic situation

The Reserve Bank of Australia reported that there was a small amount of evidence that the strength of the labour market was leading to skills shortages in some areas. Although vocational education and training is not the sole panacea for meeting all the skill needs of the nation, the VET system must be alert and responsive to changing needs.

Australian economic growth	4.2%
Unemployment	7.3%
Job vacancies per thousand unemployed	124.5
Increase in number of skilled vacancies	10%
Increase in number of skilled vacancies for trades	20%
Increase in number of skilled vacancies for professionals	5%

KPM3: EMPLOYER VIEWS ON VOCATIONAL EDUCATION AND TRAINING

Employer Satisfaction

Do you agree ...?	1995	1997	1999
RELEVANCE OF TRAINING The VET system is providing graduates with skills appropriate to employers' needs	56%	65%	69%
VALUE FOR MONEY Training pays for itself through increased worker productivity	72%	73%	74%
QUALIFICATIONS Qualifications should be based on what the person can actually do rather than how many years of training they have completed	84%	85%	82%
OVERALL SATISFIED	N/A	78%	83%

Areas for improvement

Relevance of course content was the area most-nominated by employers for improvement (27%). No other area was nominated by more than 10% of employers.

Employers of graduates think course content is ...	
Not relevant to the industry's current needs	7%
Mostly current and useable by the industry	39%
Directly relevant to the needs of the industry	40%
At the leading edge of industry needs	11%
Can't say	3%
Total	100%

Information on employer views was obtained by survey. More information to assist in interpreting the survey results can be found within this report.

KPM 4: STUDENT OUTCOMES FROM VOCATIONAL EDUCATION AND TRAINING

Reasons for doing a course

Four out of five graduates gave vocational or work reasons as their main reason for doing a TAFE course.

Percentage whose main reason was 'vocational or work reasons'	79%
To get a job or own business	27%
To get extra skills for my job	14%
To try for a different career	13%
To get a better job or promotion	12%
It was a requirement of my job	12%

Of the graduates who did the course for work related reasons 77% felt that their course had helped them achieve their main reasons for doing it.

Work outcomes

People who graduate from a TAFE course significantly improve their chances of getting a job or a better job. People who successfully complete their training without completing a course or qualification also improve their employment status, although to a lesser extent.

Graduates	Before training	After training
Full-time working	37%	42%
Part-time working	27%	18%
Total working (full-time & part-time)	65%	73%
Looking for work (unemployed)	16%	13%
Not looking for work (not in labour force)	19%	13%
Percentages of types of graduates who moved to a higher-skilled occupation after training		
Labourers and related workers		53%
Elementary clerical, sales and service workers		51%
Intermediate production and transport workers		42%
Intermediate clerical, sales and service workers		19%

Information on student outcomes was obtained by survey. More information to assist in interpreting the survey results can be found within this report.

KPM 5: VET CLIENT GROUPS PARTICIPATION, OUTPUTS & OUTCOMES

Except for people with a disability, participation in vocational education and training by students from equity groups is generally in line with each equity group's representation in the Australian community.

Six months after graduation, significantly smaller percentages of students from equity groups are working, compared to all graduates (with the exception of rural and remote students).

However, while smaller percentages are working, it appears that larger percentages are studying, bringing their combined working / studying percentages generally into line with 'all graduates'.

Group	Employed	Working / studying	Course helped / partly helped achieve main reason
Indigenous Australians	48	77	78
Non-indigenous Australians	73	88	79
Non-English-speaking background	63	85	76
English-speaking background	77	89	81
Graduates who reported a disability	46	75	72
No disability reported	74	88	80
Rural	73	87	80
Remote	81	89	84
Women	68	85	78
Men	79	91	80
All graduates	73	88	79

KPM 6: PUBLIC EXPENDITURE

per publicly-funded output

KPM 7: PUBLIC EXPENDITURE

per total recognised output

The average cost to government of providing publicly-funded vocational education and training across Australia has dropped by 9.7% since 1997.

Average national cost of providing one hour of training	$12.60
Efficiency improvement over 1998	4.3%
Cumulative efficiency improvement over 1997	9.7%
Average amount of publicly-funded training provided to each Australian 15-64 years old in 1999	20 hours
Average hours of training provided in 1998	19.4 hours

KPM8: TOTAL EXPENDITURE ON VOCATIONAL EDUCATION AND TRAINING

Total Australian expenditure on training was $8.5 billion (est.) in 1998. The Commonwealth, State and Territory governments contributed almost $4 billion toward this investment.

Information on total expenditure has not been updated from last year's report due to the unavailability of recent data relating to enterprise expenditure on training.

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PART B: INTRODUCTION

1999

Australia's vocational education and training system

The vocational education and training system provides Australians with the skills needed to enter the workforce for the first time, to reenter the workforce, to retrain for a new job and to upgrade skills for an existing job.

The system is broad and diverse, including publicly- and privately-funded vocational education and training delivered by a wide range of training institutions and enterprises. Training takes place in classrooms, on the job, off the job, online and through other flexible delivery methods.

The vocational education and training system provides training for an enormously broad range of individuals, enterprises and industries.

Investment

Australia's estimated total investment in vocational education and training in 1998 was $8.5 billion.

The total level of public and private investment in vocational education and training in 1998 was estimated at $8.5 billion. In both 1998 and 1999, the government-funded component totalled almost $4.0 billion. This investment in vocational education and training provided a wide range of opportunities for individuals and employers.

People employed

Almost 90,000 people were employed to provide vocational education and training in both public and private training organisations.

The number of teachers and trainers employed in vocational education and training is often overlooked. The Australian Bureau of Statistics' Education and Training Experience Australia 1997 found that there were almost 90,000 people engaged in the direct provision of training within both public and private training organisations of which 46,000 were employed in TAFE institutes[1]. The ABS also reported that there were a substantially larger number of company employees who were engaged in the direct provision of training for their employer.

Student numbers

The number of vocational education and training students in the publicly-funded system has grown by 7.3% since 1998 to 1.65m students in 1999.

During 1999, some 1.65m students undertook training in the publicly-funded vocational education and training system[2]. This figure represents an increase of 111,900 students (7.3%) since 1998,

[1] Australian Bureau of Statistics 1998, *Education and Training Experience Australia 1997*, p.11.

[2] 'Publicly-funded vocational education and training' includes all training reported in the national provider collection against the Australian Vocational Education and Training Management Information Statistical Standard (AVETMISS). This includes all government-funded training provided under the ANTA Agreement, and training provided on a fee-for-service basis by TAFE institutes that has been funded by governments, enterprises and individuals. Data for vocational education and training in schools, which amounted to approximately 27,400 students in 1999, is included in this instance. Scope varies slightly for Key Performance Measures 1 and 5 - refer to technical notes in Part D.

and follows an increase of 76,600 students (5.3%) from 1997 to 1998. The rapid growth in the number of apprentices and trainees, particularly from mid-1998 to mid-1999, has undoubtedly contributed to the increased number of students in the vocational education and training system.

Vocational education and training students do many different types of training, with many different types of providers, across various fields of study or areas of learning, and at differing levels of skill acquisition. The amount of time which individuals spend training varies considerably, with the great majority of students (over 90%) doing vocational education part-time.

Student Participation in Training

The participation of people in training varies markedly according to their labour force status. According to the Australian Bureau of Statistics, of those who are 'marginally attached to employment', 21% studied or did training courses in 1997, compared with 55% of those who were wage or salary earners.[1] Moreover, 74% of people employed in the public sector had studied, or done a training course, in contrast to 44% of those in the private sector.[2] Of those people still attending secondary school, 12% were undertaking subjects accredited by publicly-owned TAFE providers.

Community access

Students in the public VET sector are drawn from the full spectrum of socioeconomic backgrounds.

Reporting on Key Performance Measure 5 in Part C shows that, while the broadest cross-section of Australians do vocational education and training, the amount and type done by different groups of Australians varies.

The percentages of students in the publicly-funded vocational education and training system from different socioeconomic levels matches almost exactly the general population percentages at each level. In other words, socioeconomically speaking, students are almost an exact sample of the general population; and the system is particularly effective in providing services to the full socioeconomic spectrum of Australians. Figure B1 illustrates this point.

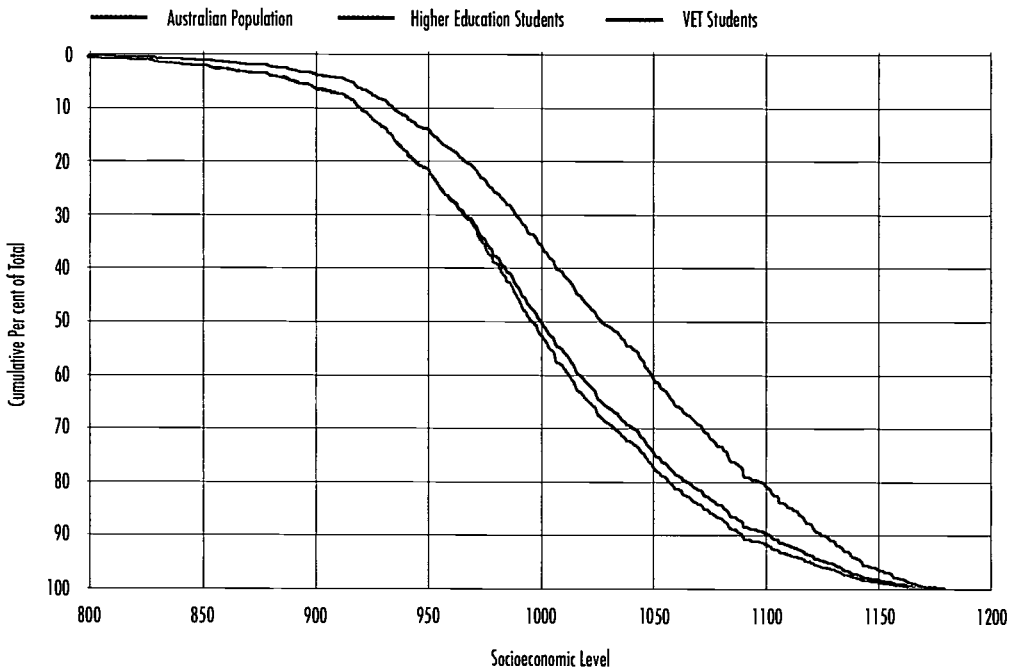
By contrast, research over a long period shows that in the higher education and upper secondary education systems, students are more likely to come from wealthier backgrounds; and that pass rates tend to be higher for students from wealthier backgrounds. Factors such as the education, income and occupation of parents (particularly the father) have been identified as important determinants of socioeconomic bias in education.

The public vocational education and training system has campuses spread throughout all capital cities and metropolitan centres, and the vast majority of towns across Australia has at least one provider offering training programs. In 1999, an estimated 69.7% of students (excluding correspondence students) lived within 20 kilometres of their training provider: 9.3% lived more than 100 kilometres distant. All students, wherever they live, have access to an increasing number of options to learn at a distance, online or through some form of self-paced or flexible delivery method.

[1] Australian Bureau of Statistics 1998, *Education and Training Experience Australia 1997*, p.6.

[2] Ibid.

Figure B1: Proportion of VET and higher education students, and the Australian population, at or below each socioeconomic level: Australia, 1999



Sources: Australian Bureau of Statistics Socioeconomic Indexes for Areas (SEIFA) from the 1996 Census, mapped to postcode districts; ABS population estimates by postcode for 30 June 1998, as at July 1999; statistics from the Department of Education, Training and Youth Affairs Higher Education Division on the number of 1999, non-overseas students with their home address in each postcode district; and NCVER statistics from the 1999 national collection of data from VET providers.

Note: SEIFA values range from 750 (poor/disadvantaged) to 1200 (rich/advantaged), approximately, and have a median value of 1000. The graph shows the proportion of each cohort (1996 population, 1999 VET students and 1999 higher education students) who are at or below the SEIFA value shown.

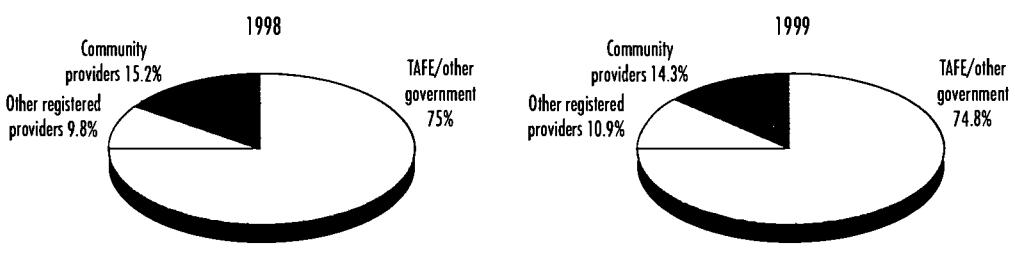
Provider diversity

'Other registered training providers' accounted for around 11% of students in 1999, up from 10% in 1998.

Between 1998 and 1999, the number of students enrolled in each provider type grew in absolute terms. Figure B2 shows that 'TAFE and other government providers' maintained much the same market share of students in 1998 and in 1999. There was slight growth (1.1 percentage points) in the student enrolments with 'other registered training providers', which now accounts for 10.9% of students, and a slight fall in the proportion of students doing vocational education and training with community providers.

These figures suggest a degree of stabilisation in the training market after a period of substantial growth up to 1998, during which the proportion of students with 'TAFE and other government providers' had declined, and the proportion with 'Community' and 'Other registered providers' had been increasing.

Figure B2: Distribution of vocational education and training students: students by provider type, Australia, 1998-1999 (per cent)



Source: National Centre for Vocational Education Research 1998 and 1999 national vocational education and training collections (that generally excludes publicly funded VET in schools data - see Part D).

Subject areas

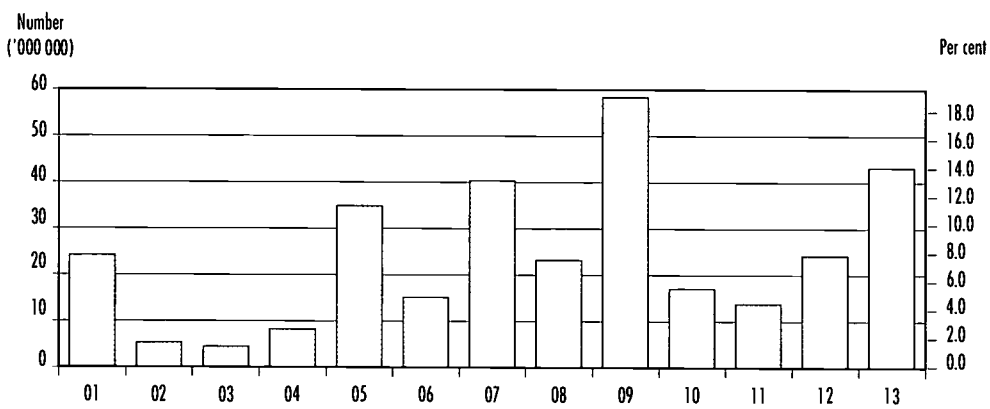
Administration and business continues to be the largest area of learning, accounting for 19.0% of activity in 1999.

The subject areas chosen by students doing publicly-funded vocational education and training in 1999 are shown in Figure B3.

Administration, business, economics and law were dominant, accounting for 19.0% of all hours undertaken in 1999. The other prominent areas of learning were engineering and processing (13.1%) and mathematics and computing (11.1%).

The social, educational and employment skills area of learning continues to be prominent, with 14.2% of hours in 1999. This area comprises subjects that focus on developing social and interpersonal skills, parental education, survival skills, numeracy, literacy and learning skills, career development, work practices and job search skills.

Figure B3: Annual hours: by area of learning, Australia, 1999 (number and per cent)



AREA OF LEARNING			
01	Humanities	08	Health sciences
02	Social studies	09	Administration, business, economics, law
03	Education	10	Built environment
04	Sciences	11	Agriculture, renewable resources
05	Mathematics, computing	12	Hospitality, tourism and personal services
06	Visual/performing arts	13	Social, educational and employment skills
07	Engineering, processings		

Source: National Centre for Vocational Education Research 1999 national collection.

Qualification levels

Almost 20% of students are enrolled for a Certificate III.

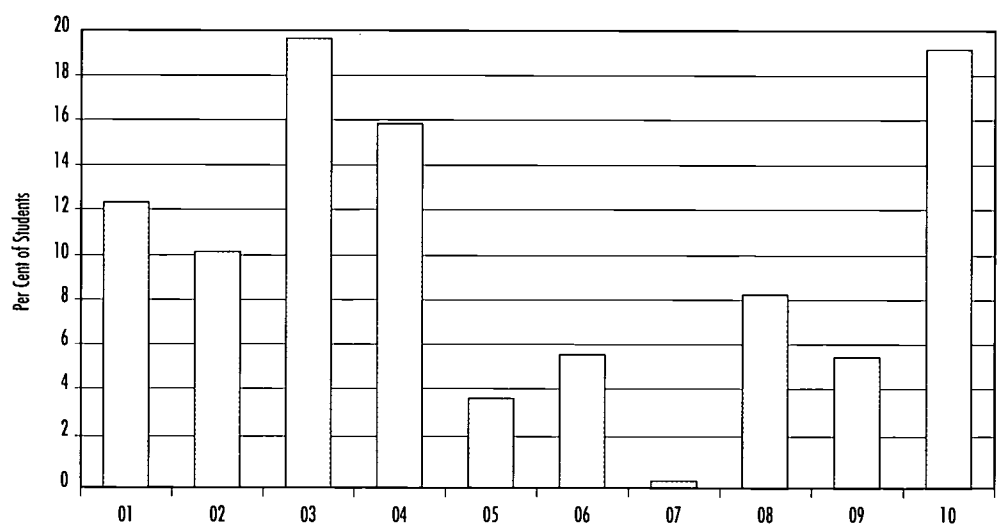
The programs undertaken by vocational education and training students span a range of levels in the Australian Qualifications Framework (AQF). In 1999, 67% of vocational education and training students were enrolled in a recognised course within the AQF as their major qualification (Figure B4).

All AQF levels below the Bachelors degree level (except senior secondary, which is delivered mostly in secondary schools) are well-represented in the qualifications profile for vocational education and training. The single largest category of enrolments is for AQF Certificate III (19.6% of students), followed by AQF Certificate II (15.9%). A total of 10.1% of enrolments are associated with AQF Certificate IV while 12.2% are enrolled in courses at the Diploma level or higher.

The large majority of courses undertaken by apprentices and trainees (who comprise almost one-fifth of students doing vocational education and training) were at AQF Certificate II, III and IV levels. More detailed information about apprentices and trainees is provided later in this section.

Of the 33% of students who were not enrolled in an AQF qualification, a small number (5.7% of all students) were enrolled in modules but not in a course leading to a recognised qualification. A further 8.2% of all students enrolled in a course that led to a recognised qualification outside of the AQF (for example, certificates of proficiency and endorsements to certificates), while 19.0% of students undertook non-award courses. Students who were not enrolled in a recognised course were in shorter programs and accounted for a significantly lower proportion of training effort than their enrolment proportion would indicate.

Figure B4: Number of students: by AQF level of major qualification, Australia, 1999 (per cent)



01	AQF Diploma or Higher	06	ACF Certificate I
02	AQF Certificate IV	07	AQF Senior Secondary
03	AQF Certificate III	08	Other Recognised Courses
04	ACF Certificate II	09	Module-Only Students
05	AQF Equivalent - Level Unknown	10	Non-Award Courses

Time spent training

Half of the students did training programs of less than 100 hours in 1999. 10% of all students were full-time.

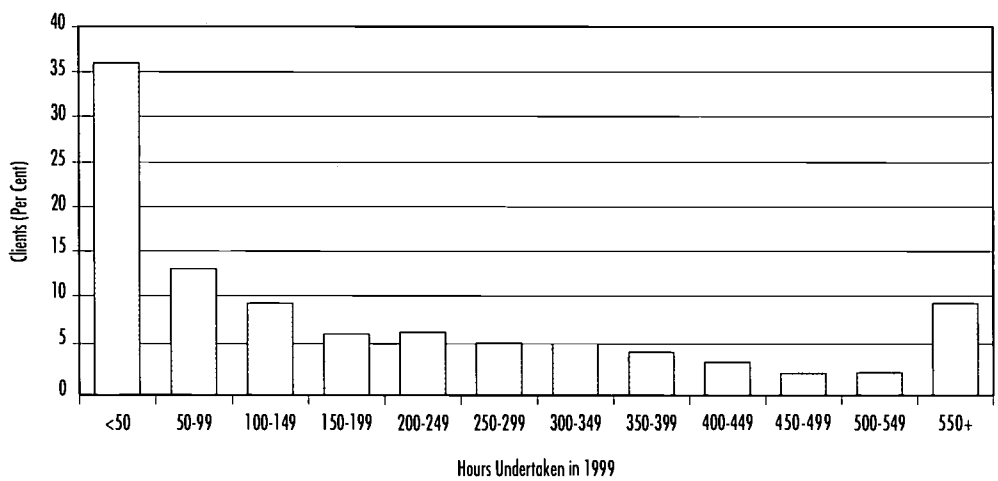
A large proportion of vocational education and training students do short, intensive programs aimed at developing specific job skills. The availability of these programs is a distinguishing feature of the vocational education and training system. This contrasts markedly with higher education, where students are more likely to do programs that go for several years.

The length and intensity of a vocational education and training student's program depends among other things on: whether they want to gain specific job skills or do a full qualification; their level of qualification; the method of delivery; and their rate of progress through their program. These factors are reflected in the very broad range of hours of training done by students in 1999 (Figure B5).

Exactly half of all students did training programs of less than 100 hours in 1999. By contrast, full-time students (those doing 540 hours or more in a year) comprised about 10% of all students. However, a person who annually spends a relatively small number of hours doing training is not necessarily doing a short course. Many students choose to do longer training programs part-time, over an extended period of time.

The pattern of hours per student for 1999 shown in Figure B5 is an ongoing one and has been characteristic of the public vocational education and training system for a number of years.

Figure B5: Hours of vocational education and training undertaken by students: hours per student in 1999 (per cent of total students)



Source: National Centre for Vocational Education Research 1999 national vocational education and training collection.

Combining the data about qualifications with the data about time spent training, it is clear that the national market for publicly-funded vocational education and training is highly stratified into:

- students doing complete courses that lead to an AQF qualification
- students doing only specific components of courses that lead to AQF qualifications, intending to acquire certain skills rather than get a full AQF qualification
- students doing complete courses leading to a State or Territory recognised qualification that sits outside of the AQF
- students doing courses, or components of courses, which do not lead to any recognised qualification. These courses are generally short and designed to build specific skills.

Young people in education and training

More people aged 16-24 years old are doing vocational education and training than are studying at universities.

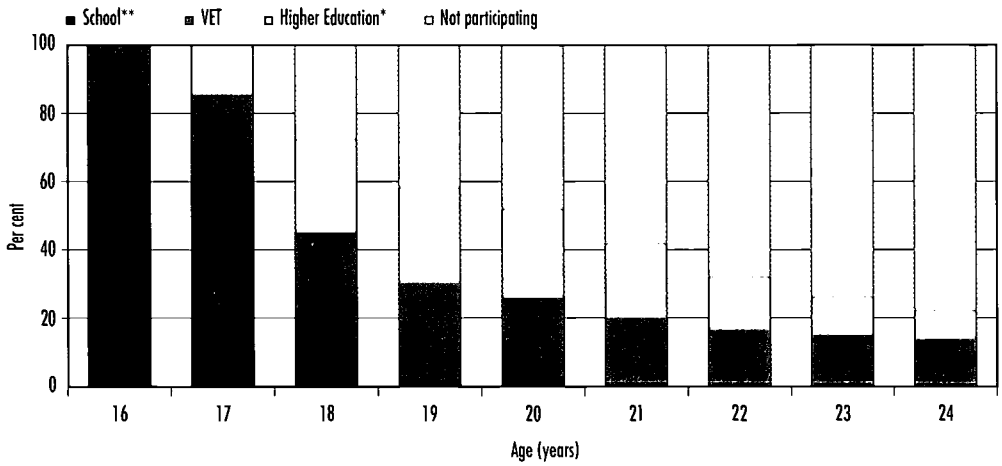
The majority of people up to 17 years of age who are doing education and training are doing it in schools (Figure B6). However, as young people age and move beyond school, there is a marked and continuous decline in the percentage of people doing education and training. The percentage drops from approximately 75% participation at age 18 to less than 25% participation at age 24.

While the percentages of 18-24 year olds doing vocational education and training or studying at university are roughly equal, more 16- 24 year olds are doing vocational education and training than are at university. This elevated level of participation in vocational education and training is most concentrated in the 16-18 year age group.

The Commonwealth, State and Territory Governments are also increasingly supporting vocational education and training in schools with 1999 being the third year of a four-year $20m funding initiative by ANTA for vocational education and training in schools programs.

Data collection on vocational education and training in schools activity is not yet nationally-consistent, although work is continuing to ensure that it will be in future. Because of inconsistencies, vocational education and training in schools activity is excluded from key performance measure calculations.

Figure B6: Participation in education and training: by sector, aged 16-24, Australia, 1999



Sources: Australian Bureau of Statistics 1999 June *Estimated Resident Population* data; Australian Bureau of Statistics *Schools Australia*; Department of Education, Training and Youth Affairs *Selected Higher Education Student Statistics* 1999; National Centre for Vocational Education Research 1999 national collection (unpublished data).

* University 16 year old cohort also includes those aged under 16 years.

** Schools 20 year old cohort also includes those aged over 20 years.

Refer also to technical notes in Part D.

Progress against the Finn targets

In 1991, ministers for vocational education and training set targets for participation and attainment in post-compulsory education and training by young people. These so-called Finn Targets are described below:

By 2001, 95% of 19 year olds:

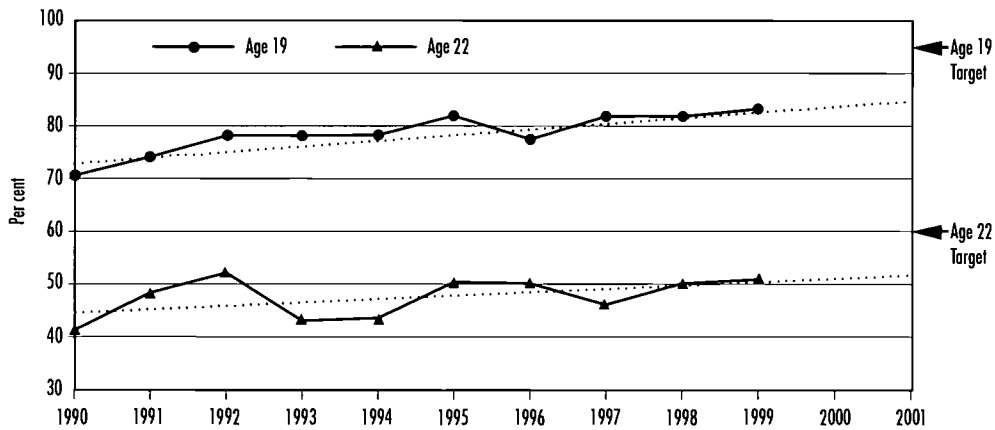
- will be participating in or have completed Year 12; or
- will have completed Years 10 or 11 and will be participating in some formally-recognised education and training; or
- will have completed Year 10 or 11 and will have completed some formally-recognised education and training.

By 2001, 60% of 22-year-olds:

- will be participating in education and training programs which lead to an AQF level III qualification; or
- will have attained AQF level III qualifications or above; or
- are participating in, or have completed, higher education studies such as degrees and diplomas.

Figure B7 shows participation and attainment rates for 19 and 22 year olds from 1990 to 1999 against the respective 2001 targets.

Figure B7: Participation and attainment in post-compulsory education and training: people aged 19-22, Finn targets, 1990 to 1999 (per cent)



Source: Derived using data from the annual Australian Bureau of Statistics *Transition from Education to Work* surveys.

Note: A revision of the methodology to monitor the Finn targets was undertaken in 1999, with an agreed approach being reached for measuring the attainment of the Finn targets to 2002 (reporting on 2001). The approach adopted has meant that some of the previous data used to measure attainment against the targets has been revised.

Participation and attainment for 19 and 22 year olds is not in line with Finn targets, but it is improving.

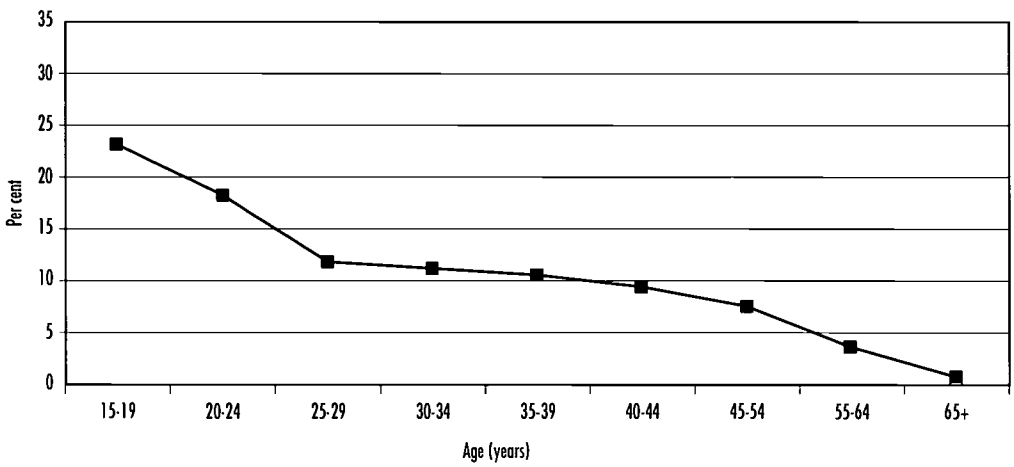
The trend lines in the figure for 1990 to 1999 indicate that educational participation and attainment for 19 and 22 year olds is improving, but that on current trends, the Finn targets for both age groups will not be met.

Young people in vocational education and training

About 11.4% of 15-64 year old Australians do vocational education and training; but the percentage for 15-24 year olds is about double.

Younger people do vocational education and training at substantially higher rates than do older people. Whilst the participation rate for all people aged 15-64 was 11.4% in 1999, 23% of people aged 15-19 and 18% of 20-24 year olds participated in vocational education and training during 1999. (Figure B8). The participation rate for the combined 15-24 year old cohort was 20.6% which was almost twice the rate for the entire population aged 15-64.

Figure B8: Vocational education and training participation: by age, 15-64, 1999 (per cent)



Source: Derived using National Centre for Vocational Education Research data for clients and Australian Bureau of Statistics 1999 June Quarter *Estimated Resident Population* data. Data from secondary education authorities are excluded.

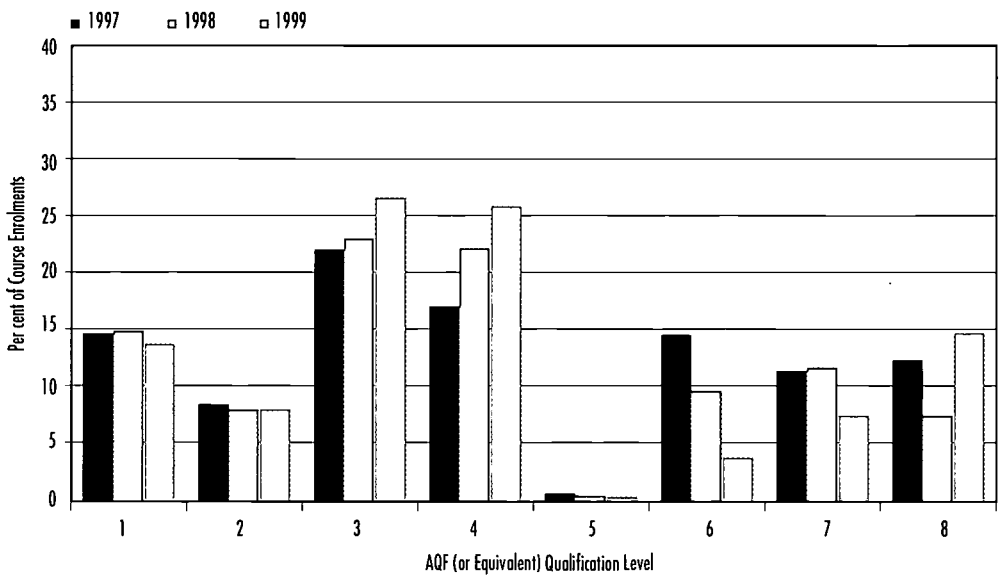
Young people do a variety of vocational education and training programs across a range of AQF levels (Figure B9). As the old courses under the Register of Awards in Tertiary Education (RATE) have been progressively phased out in favour of AQF qualifications, the proportions of enrolments by young people in AQF programs at certificate levels I, II and III have increased. In 1999, 26.4% of young people were enrolled at AQF level III or RATE equivalent, and 25.8% at AQF levels I and II.

26.4% of young people were enrolled at AQF level III or equivalent, and 25.8% at AQF levels I and II.

However, young people are also doing relatively large numbers of courses which do not lead to recognised qualifications. These courses accounted for almost 15% of course enrolments in 1999.

The figures also reflect the broadening range of pathways into (and through) vocational education and training that are now available to young people through, for example, programs in schools and the New Apprenticeships initiative.

Figure B9: Vocational education and training enrolments: by qualification level, ages 15-24 years only, 1997 to 1999 (per cent)



1	Diploma	5	Senior Secondary*
2	Certificate IV	6	Other Qualifications
3	Certificate III	7	Statement of Attainment
4	Certificate I & II	8	Non-Award

Note 1: vocational education and training clients enrolled in more than one course are counted more than once.

Note 2: see Part D for the recoding of Australian Vocational Education and Training Management Information Statistical Standard qualification codes into the above groups.

* This category accounts for only a small proportion of all vocational education and training activity in schools.

The teenage labour market

Vocational education and training leads to employment for many school leavers. The labour force and education characteristics of 15-19 year olds are reported in Table B1. Over two-thirds of this group were studying, with a quarter combining study with part-time work. Only 16% were employed full-time, with no change reported in the percentage employed full-time over the previous year.

In May 1999, 5% were unemployed and not studying, compared with 6.5% in 1998. Much teenage employment is transitory and in industries such as retail and 'accommodation, cafes and restaurants'. This has implications for skill formation, as a large proportion of employees in these sectors are teenagers.

Table B1: Labour force status of 15 to 19 year olds: May 1999 (per cent of population)

	Unemployed		Employed			Not in the labour force		Total
	Non-student	Student	Full-time	Part-time Non-student	Part-time Student	Non-student	Student	
Males	5.4	5.8	20.7	5.0	20.7	3.1	39.2	100.0
Females	4.4	5.6	12.1	7.1	28.7	4.0	38.0	100.0
People	4.9	5.7	16.5	6.0	24.6	3.6	38.6	100.0

Source: Australian Bureau of Statistics catalogue number 6203.0, May 1999.

Apprentice and trainee training

Apprentice and trainees benefit from the combination of paid employment while also receiving structured training leading to a recognised qualification.

Nationally, distinctions between apprenticeships and traineeships are no longer made, with both now known collectively as New Apprenticeships (although some States and Territories have retained the apprentice and trainee names and distinctions). New Apprenticeships are more flexible than previous arrangements, encouraging employers to offer more places to young people. Features of the New Apprenticeships initiative include:

- training and assessment based on national Training Packages that lead to nationally-recognised qualifications (AQF)
- training in a far broader range of areas than previously, including in growth sectors such as information technology and multimedia
- one-stop shop support services
- much greater choice by clients about who provides what training, when, where and how
- much greater opportunities for in-the-workplace training, and improved ways of assessing the results of informal training and current competence

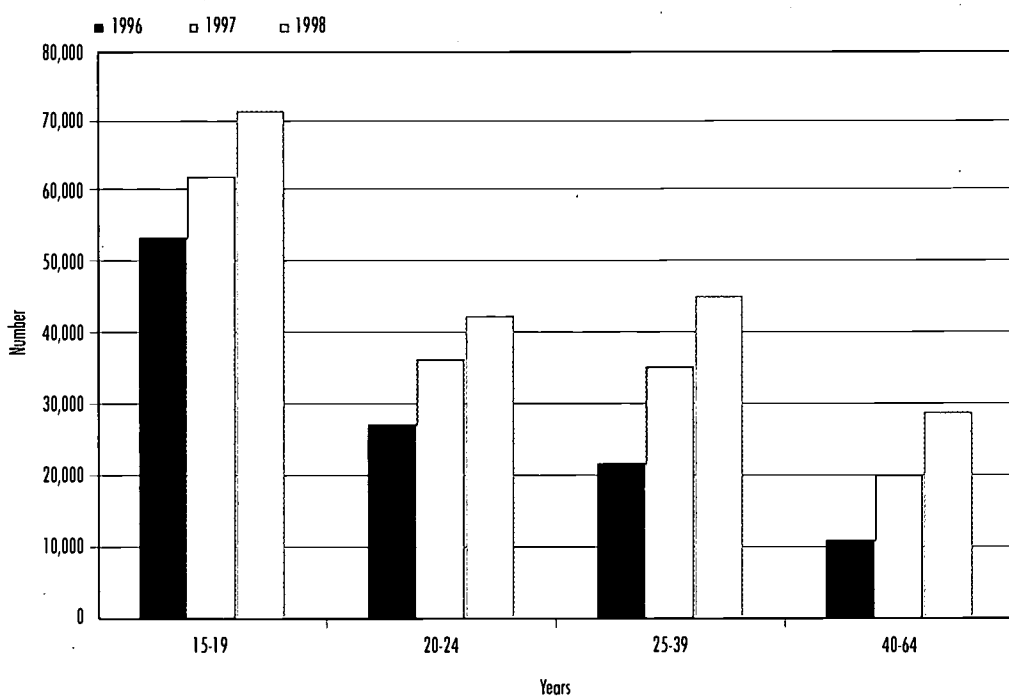
- school-based apprenticeships and traineeships
- far fewer fixed-duration apprenticeships and traineeships, and with program time largely determined by the time needed for the person to become competent.

New Apprentices sign a training contract with an employer. The contract specifies the training, support and supervision an employer must arrange for the apprentice or trainee. Contract of training data include school-based New Apprenticeships.

Increasing commencements

The number of commencing apprentices and trainees has increased markedly for all age categories in recent years. Figure B10 shows the ages of commencing apprentices and trainees in 1997, 1998 and 1999.

Figure B10: Number of commencing apprentices and trainees: by age group, 1997 to 1999



Source: National Centre for Vocational Education Research apprentice and trainee data.

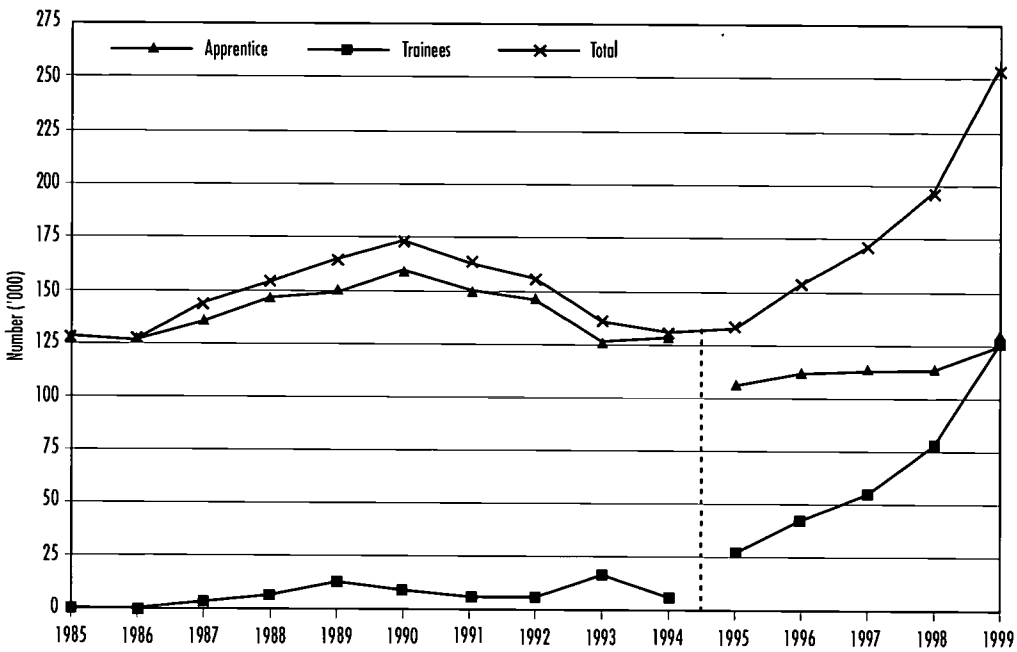
Increased total numbers in training

There were a record 193,800 apprentices and trainees in 1998, and a further record of 255,600 in 1999.

The total number of people doing an apprenticeship and traineeship (including those commencing and continuing) passed 250,000 for the first time in 1999. The number of young people doing apprenticeships and traineeships continued to grow, as did the number of older people - strongly. Growth is also evident in new industry areas.

Figure B11 shows the substantial rise in the number of apprentices and trainees since 1996, and shows the number of apprentices and trainees between 1985-1999. The historical high of 172,800 apprentices and trainees reached in 1990 was surpassed in 1998, with 193,800 apprentices and trainees. This figure had grown to around 255,600 as at 30 June 1999, and has increased further since. The rapid growth in the number of apprentices and trainees has undoubtedly contributed substantially to an increased number of students in the vocational education and training system.

Figure B11: Number of apprentices and trainees in training at 30 June, 1985 to 1999*, Australia

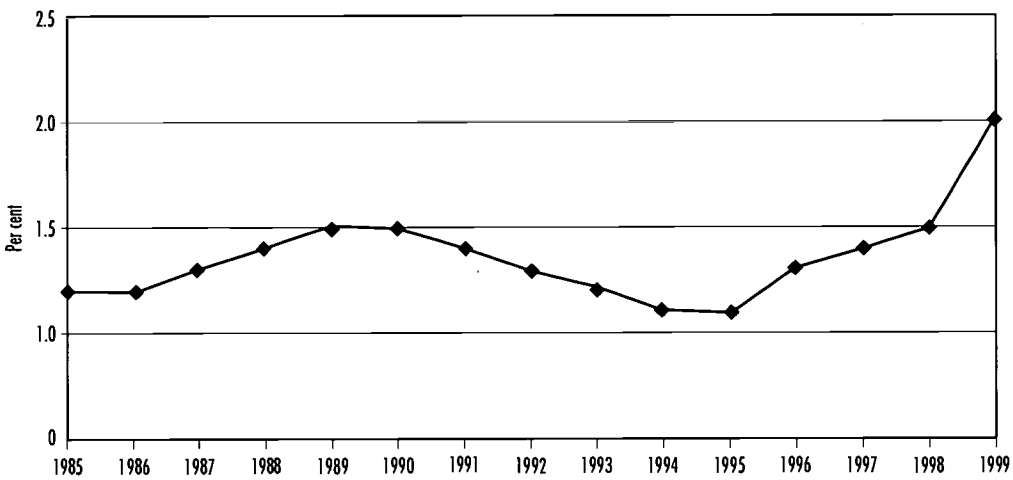


* Note: The number of trainees in-training has been estimated between 1985 to 1993.

There was a break in the series in 1994, owing to a change in the method used to distinguish the two groups. For 1995 onwards, the 'apprentice' group consists of those contracts at AQF Level III or higher with an expected duration of over two years.

The growth in the number of apprentices and trainees has exceeded the growth in Australia's 15-64 year old population between 1985 and 1999. Rates of participation for 15-64 year olds in apprenticeships and traineeships increased from a low of 1.1% in June 1994 and 1995, to 1.5% in June 1998, to 2.0% in June 1999 (Figure B12).

Figure B12: Apprentices and trainees participation rate: at 30 June 1985 to 1999, Australia (Per cent of 15-64 year olds)



Note: Derived from NCVER apprentice and trainee statistics and ABS *Demographic Statistics* (Cat. No. 3101.0).

Apprenticeships and traineeships combine employment with training to provide skilled labour for Australian industry. In 1999 the most common trades were the construction and automotive (26,800 and 23,000 respectively). Although growth in the number of 'tradespersons and related workers' was relatively low between 1997-1999, some specific trade areas in this category grew significantly (for example, construction tradespersons and food tradespersons). In fact, the food tradespersons group showed the greatest growth, at 22.1% between 1997-1999.

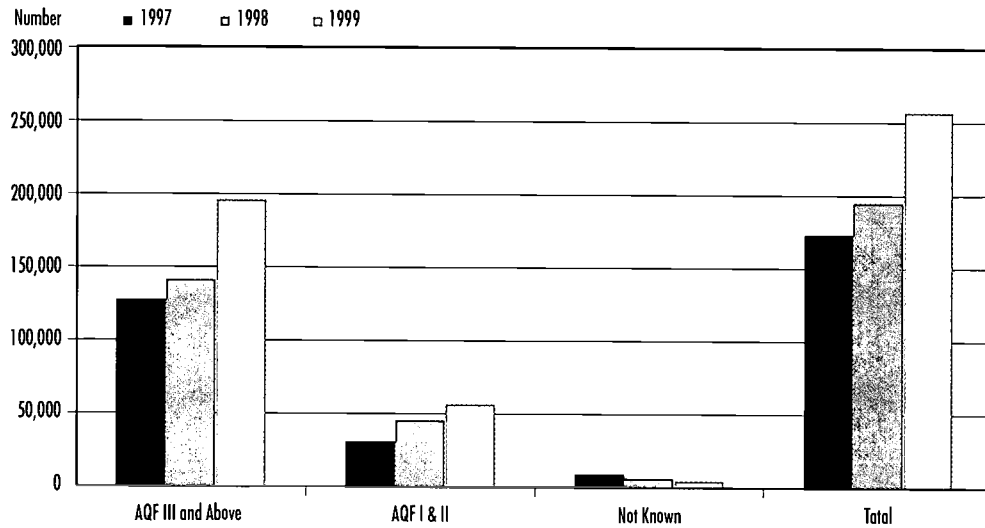
Details of the number of apprentices and trainees between 1997 and 1999, based on occupational groups (using the Australian Standard Classification of Occupations) are provided in Part D, Table D2.

The proportion of female apprentices and trainees increased from 21.5% in 1997 to 32.1% in 1999.

Since the introduction of New Apprenticeships, there has been particularly strong growth in the number of older people doing apprenticeships and traineeships (Part D, Table D3). As a result, apprenticeships and traineeships are now much more broadly-dispersed across age groups than before. There has also been strong growth in the proportion of female apprentices and trainees, increasing from 21.5% in 1997 to 32.1% in 1999.

At 30 June 1999, 76.8% of apprentices and trainees were doing an AQF level III program and above, and 21.5% were doing an AQF level I or II program. This compares with about 72.4% of apprentices and trainees doing an AQF level III program at 30 June 1998, and 23.4% doing an AQF level I or II program (Figure B13).

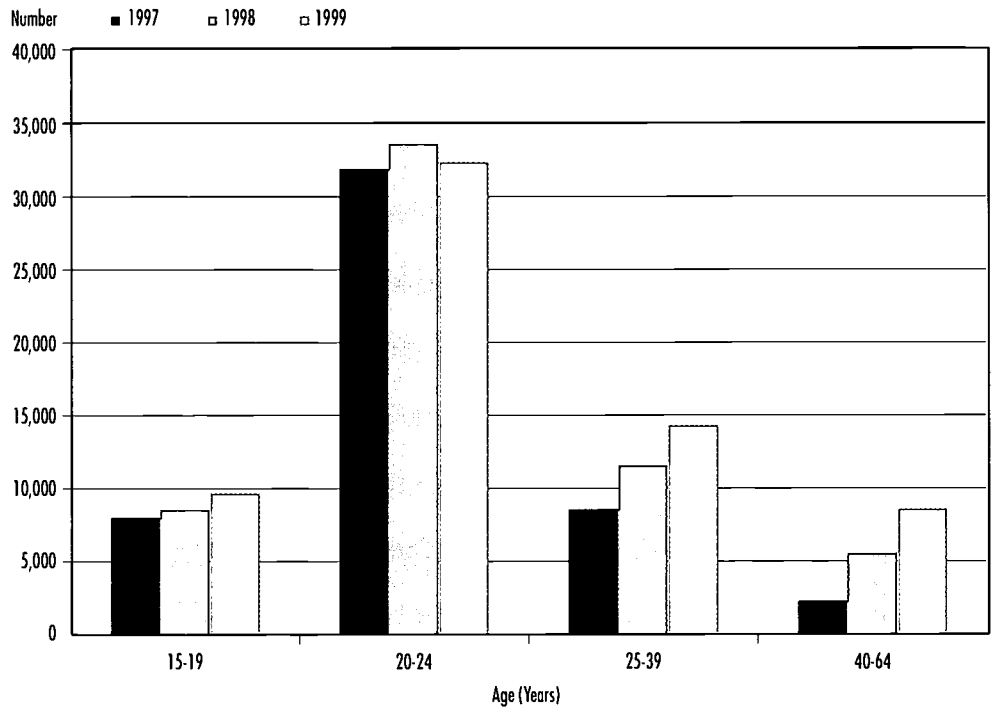
Figure B13: Apprentices and trainees: by qualification, as at 30 June 1997 to 1999, Australia



Completions

Figure B14 shows the ages of completing apprentices and trainees for 1997, 1998 and 1999, based on the data that had been reported up to the end of March 2000. There was particularly strong growth from 1997 to 1999 in the number of completing 40-64 year old apprentices and trainees, explained primarily by the rapid growth in the number of traineeships during the period.

Figure B14: Number of completing apprentices and trainees: by age group, 1997 to 1999



Source: National Centre for Vocational Education Research apprentice and trainee data.

The reported number of apprentice and trainee completions has not grown as rapidly as the number of commencements, or the number doing training. This is to be expected to some extent, as only those commencing shorter-duration New Apprenticeships during the recent expansion would have had the opportunity to complete their training.

Owing to reporting lags, the full picture for completions during a particular period is not known for some time. Accordingly, completions for 1999 are underestimated, and less so for 1998. Also, a significant number of apprenticeships and traineeships pass the expected completion date with the final outcome unreported, allowing for possible further underreporting of completion numbers. These and other factors have raised concern within governments about the number and rate of non-completions, particularly among trainees.

Consequently, a number of national projects are under way to investigate and address these issues. Effort is being directed into understanding New Apprenticeship non-completions from both an individual and employer perspective, and to identify strategies to promote completion and improve reported completion rates.

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PART C: KEY PERFORMANCE MEASURES

1999

Skill outputs produced annually within the domain of formally recognised VET

Skill output measures are the most fundamental of all the key performance measures. Skills output measures enable an understanding of the productivity of the vocational education and training system, by measuring the amount of formally-recognised vocational education and training successfully completed each year by students.

The ways in which skill outputs are measured are currently undergoing major change. In 1997, ministers for vocational education and training decided that the skill outputs of formally-recognised vocational education and training would include:

- the number of units of competency achieved within Training Packages;
- the number of assessed and successfully-completed training modules that remain outside of Training Packages;
- a standardised measure of skill outputs that aggregates the two 'building block' measures (units of competency and remaining module outputs) on a single scale; and
- the number of qualifications completed

Methods for collecting data and reporting against these output measures are currently being implemented. These changes in reporting are integrally linked to the development and implementation of Training Packages, through which training and assessment based on competency standards can lead to the achievement of units of competency and AQF qualifications. As vocational education and training becomes increasingly based on Training Packages, the relevance of completed modules as a reporting measure will diminish.

The standardised output measure is intended to provide a weighted aggregate of all skill outputs, recognising that each unit of competency and remaining module involves different levels of skill, or intensity of training. Research into an implementation approach for this measure continued during 1999.

With respect to the reporting of the number of qualifications completed, a project is currently underway to ensure more complete reporting of the eligibility of individual students to receive a recognised qualification and to assist providers in issuing qualifications to successful students. The number of qualifications completed will be reported from next year.

PARTICIPATION IN VOCATIONAL EDUCATION AND TRAINING

11.4% of Australians did publicly-funded vocational education and training in 1999.

Whilst participation in vocational education and training is not an output measure per se, such information assists with interpretation of the reported output measures.

National participation in publicly-funded vocational education and training in 1999 was 11.4% (Table C1.1). There has been a steady increase in participation in recent years, with the number of 15 to 64 year old students undertaking publicly-funded vocational education and training growing at a faster rate than the number of Australians aged 15 to 64.

The increased participation rate since 1997, observed both nationally and in each State and Territory, has been steady. Growth in participation has been fuelled by increased demand for vocational education and training as well as by various initiatives of State and Territory Governments to achieve growth.

Table C1.1: Vocational education and training participation rates: by State/Territory, 15 to 64-year-olds, 1997 to 1999 (per cent)

Year	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
1997	10.4	12.4	7.0[a]	11.0	8.2	7.7	9.9	7.0	10.0
1998	10.5	12.3	10.1	11.6	8.6	8.7	11.0	7.4	10.7
1999	11.0	13.5	11.2[b]	11.4	9.2	9.4	12.7	8.0	11.4

Derived using National Centre for Vocational Education Research data and Australian Bureau of Statistics revised June 1997 and 1998 and preliminary *Estimated Resident Population* data for 1999.

Note (a): Analysis by Queensland indicates that the 1997 participation rate for Queensland is understated owing to no date of birth being recorded against a relatively large number of clients in the 1997 TAFE AVETMISS data set.

Note (b): With the introduction of AVETMISS Release 3.0 some courses which were considered outside the scope of reporting in 1998 have been reclassified as VET courses in 1999. As a result students previously excluded are now included.

More detailed participation data for 1999 by age, sex and State/Territory is provided in Part D.

SKILL OUTPUTS FROM VOCATIONAL EDUCATION AND TRAINING

This report provides the first opportunity to report on the achievement of units of competency in Training Packages. As 1999 is the first year of Training Package implementation, the reported information does not capture the full impact of Training Package implementation, and should be treated accordingly.

Training Packages provide the new foundations for vocational education and training programs. They bring together through one industry-managed process the previously disconnected approaches to standards, programs, qualifications and learning resources, creating a comprehensive package of tools for learning and assessment leading to nationally-recognised qualifications.

In terms of outputs, students may do training that leads to the attainment of one or more units of competency which, in combination, may also lead to the achievement of a nationally-recognised qualification.

During 1999, States and Territories progressively implemented Training Packages. Implementation of the initial 31 Packages was assisted with the provision of an additional $10m by the Commonwealth and ANTA to States and Territories.

By the end of 1999, a total of 50 Training Packages had been endorsed by the National Training Framework Committee, including packages for areas of rapid employment growth (such as financial services, information technology and community services) as well as Australia's current economic mainstays (manufacturing and primary resources, including forest and forest products, food processing and mining).

UNITS OF COMPETENCY ACHIEVED

In 1999, student enrolments were reported in a total of 36 Training Packages (Table C1.2). Some Training Packages (as marked) are not relevant for particular States or Territories and have not been implemented.

Almost 150,000 students were enrolled in Training Packages during 1999, representing 9.1% of students enrolled and 11.4% of hours in the total vocational education and training system. As the full range of Training Packages is yet to be implemented, this information provides only the initial indication of Training Package roll-out.

Also, whilst Training Packages represent only a modest proportion of total training activity in 1999, large numbers of students in 1999 were continuing their training in programs that pre-exist the introduction of Training Packages. It is anticipated that the proportion of enrolments in Training Packages will increase significantly over the next couple of years as new students are enrolled in Training Package qualifications and existing students complete their training. In addition, it is believed that there will remain a small quantum of existing training products that will not be replaced by Training Packages.

The majority of successfully-achieved units of competency were for enrolments in the Administration and Hospitality Training Packages, which together accounted for 65% of the total number of achieved competencies (Table C1.2).

During 1999, almost one million Training Package units of competency were reported as achieved (Table C1.3) where the three most prominent areas of learning cover business, hospitality and general social/education skills.

Table C1.2: Training Package implementation and units of competency achieved at 31 December 1999: by State/Territory

Training Package	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust*
Administration	✔	✔	✔	✔	✔	✔	✔	✔	295,972
Aeroskills -	✔	-	-	(a)	-	-	-	-	137
Agriculture	✔	✔	✔	✔	-	✔	✔	✔	27,305
Assessment and Workplace Training	✔	✔	✔	✔	✔	✔	✔	✔	17,035
Asset Maintenance	✔	✔	✔	✔	✔	-	✔	✔	2,111
Asset Security	✔	✔	-	-	-	-	✔	✔	13,641
Australian Meat Industry	✔	✔	✔	✔	✔	✔	-	-	15,671
Automotive Industry Retail Service & Repair	-	-	-	-	✔	✔	-	✔	743
Black Coal	✔	-	-	(a)	(a)	-	-	-	637
Chemical, Hydrocarbons and Oil Refining	-	✔	-	-	-	-	✔	-	92
Civil Construction	-	✔	✔	✔	-	-	✔	-	2,553
Community Services	✔	✔	✔	✔	✔	✔	✔	✔	6,261
Correctional Services	-	✔	-	-	-	-	✔	-	
Electrotechnology Industry	✔	-	-	✔	-	-	-	-	

Training Package	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust*
Entertainment Industry	-	✔	-	✔	-	✔	✔	-	554
Extractive Industry	✔	✔	✔	-	-	-	-	-	250
Finance	-	✔	-	-	-	✔	✔	-	54
Financial Services	-	-	-	-	✔	-	-	-	
Food Processing Industry	✔	✔	✔	✔	✔	-	-	-	6,105
General Construction	-	✔	-	✔	✔	✔	✔	✔	4,269
Horticulture	✔	✔	✔	✔	-	✔	✔	✔	17,637
Hospitality Industry	✔	✔	✔	✔	✔	✔	✔	✔	313,309
Information Technology	✔	✔	-	✔	-	✔	✔	✔	3,186
Metal and Engineering Industry	-	✔	✔	✔	-	✔	✔	-	1,830
National Outdoor Recreation Industry	-	-	-	-	-	✔	-	-	
Plastics, Rubber and Cablemaking	-	✔	-	✔	-	-	-	-	
Printing and Graphic Arts	-	-	-	-	✔	-	-	-	
Pulp and Paper Manufacturing Industries	-	✔	(a)	-	(a)	-	-	-	42
Racing Industry	✔	✔	-	✔	-	-	-	-	385
Retail	✔	✔	✔	✔	✔	✔	✔	✔	46,751
Telecommunications Industry Technical	✔	✔	-	✔	✔	✔	✔	✔	692
Tourism	✔	✔	✔	✔	-	✔	✔	✔	18,417
Transport and Distribution	✔	✔	✔	✔	-	✔	✔	✔	16,551
Veterinary Nursing	✔	✔	✔	✔	-	✔	-	-	81
Units of competency undertaken outside of Training Packages (e.g. accredited courses)**	✔	✔	✔	✔	✔	✔	✔	✔	125,975
% of all competency and module enrolments undertaken as part of a Training Package	14.2	14.4	17.5	14.8	2.6	26.3	23.1	18.1	14.3
% of annual hours undertaken as part of a Training Package	9.5	12.2	15.4	15.0	2.2	24.4	19.8	14.1	11.4

* total number of units of competency achieved.

** Units of competency can be undertaken as part of a training package qualification, as individual units not leading to any qualification, or the standards borrowed for other nationally accredited courses.

✔ Enrolments in this Training Package in 1999.

\- no enrolments in this Training Package in 1999.

(a) Training Package not applicable in this State/Territory.

REMAINING MODULES COMPLETED

The majority of students doing recognised vocational education and training in 1999 continued to be enrolled in modules that are not part of Training Packages. The number of 'remaining modules' completed in 1999 is provided, by area of learning, in Table C1.3. In this respect, completed modules include only those modules that were assessable. A discussion on other successful completions appears later in this chapter.

Table C1.3: Units of competency achieved and remaining assessable modules completed: by area of learning, 1999

Area of learning (discipline group)	Total competencies achieved**	Remaining assessable modules completed*
01 Humanities	70,440	359,227
02 Social Studies	1,764	78,466
03 Education	24,880	55,272
04 Sciences	24,217	148,273
05 Math Computing	77,725	779,810
06 Visual, Performing Arts	895	212,882
07 Engineering, Processing	36,453	787,942
08 Health Sciences	73,288	690,435
09 Admin, Bus, Econ, Law	279,865	1,085,866
10 Built Environment	13,347	336,104
11 Agriculture, Renewable Resources	23,365	322,827
12 Hospitality, Tourism & Personal Services	217,466	418,167
13 Social, Education & Employment Skills	94,495	554,802
Not Stated	48	0
Total**	938,248	5,830,073

* Units of competency and remaining modules should not be added together as these units do not measure items of equal value.

The methodology used to determine remaining modules for 1999 may result in the under reporting of remaining modules, which is the case in NSW.

** Units of competency and modules vary in skill level and intensity of training. Care should be exercised when interpreting total numbers.

Load pass rates

Until 1998, module completions and the module load pass and completion rates were used as the main indicators of output. For 1999, these measures have been reviewed, and the load pass rate is now provided to supplement the agreed measures of output.

With revisions to the AVETMIS Standard for 1999, it was agreed that the most appropriate means of determining and reporting pass rates was to focus attention on those module and competency enrolments that were assessable. Part D of this report provides a full explanation of the load pass rate, including the basis for its calculation. A discussion on other successful completions appears later in this chapter.

In 1999, the national pass rate for vocational education and training was 74.5%.

The 'load pass rate' measures the number of hours of assessable training that students have passed, as a proportion of the total hours of assessable training. In 1999, the load pass rate captured more than three-quarters of publicly funded vocational education and training activity within its scope.

Nationally, the load pass rate was 74.5% in 1999, a decline from 75.5% in 1998 (Table C1.4)

The variation in the load pass rate among States and Territories is due to differences in the composition of the student population and the types of courses undertaken, as well as differences in teaching and administrative policy and practices across jurisdictions.

Table C1.4: Load pass rates over time: by State/Territory, 1998 to 1999 (per cent)

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
1998	74.3	75.1	74.0	85.4	75.7	85.4	69.0	76.5	75.5
1999	71.9	73.6	75.5	85.7	73.3	83.4	69.5	79.8	74.5
Variation 1998 to 1999	-2.4	-1.4	1.5	0.3	-2.3	-2.0	0.5	3.3	-1.0

(See Part D or the glossary for a full definition of the load pass rate and data adjustments).

SUCCESSFUL COMPLETIONS BY INDIVIDUAL STUDENTS

The overall load pass rate gives a broad indication of the success in assessable training of all students doing vocational education and training. However, it is also interesting to look at success from the standpoint of the individual student in both assessable and non-assessable training at the unit or module level in 1999.

Two-thirds of students successfully complete more than 95% of the training they undertake.

In 1999, over two-thirds of students successfully completed nearly all (more than 95%) of their training (Table C1.5). Only a small number of students (12.4% nationally) completed almost none (less than 5%) of their training. These figures indicate that a large proportion of students are successful in their assessable and non-assessable vocational education and training endeavours. This data, when further analysed, also enables 'at risk' groups, who might need additional support to achieve success in their training, to be identified.

Table C1.5: Distribution of successful completions for individual students in units of competency and modules: by State/Territory, 1999 (per cent)

Proportion of training completed	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
Nearly all (> 95%)	64.7	70.4	66.8	77.3	54.0	67.0	52.7	58.4	66.7
Some (5- 95%)	22.6	17.2	23.0	16.1	26.3	19.6	26.7	29.6	20.9
Almost none (< 5%)	12.6	12.4	10.2	6.6	19.7	13.4	20.5	12.0	12.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

OTHER SUCCESSFUL OUTPUTS

Some successful outcomes of training do not lead to a strict 'pass' result under the AVETMIS Standard but are, nonetheless, successful outcomes for students. Such outcomes include the successful completion of non-assessable training, the recognition of a student's prior learning, and credit transfer (see also Part D). These outcomes are not included when counting the number of remaining modules completed or when determining load pass rates.

Recognition of prior learning

Recognition of prior learning by registered training organisations enables people to have their existing knowledge and skills formally recognised, irrespective of where, when and how they were acquired.

Recognition of prior learning can shorten the time it takes to complete a qualification, ensure that a student's program best meets their needs, and minimise the amount of time that employees spend away from the workplace.

Market research conducted by ANTA in 1999 confirmed that recognition of prior learning has great appeal for people, is a powerful tool for affirming their worth, and encourages them and their employer to build on their existing skills.

Skills outputs associated with the recognition of prior learning accounted for 2.5% of total training activity in 1999 (Table C1.6). While this figure remains small in percentage terms, significant growth has been observed in recent years. The plateau in training activity observed in 1999 is mainly attributable to a decline in RPL hours reported in Victoria.

Table C1.6: Annual hours curriculum associated with recognition of prior learning: by State/Territory, 1997 to 1999 ('000 annual hours curriculum)

Year	NSW	Vic	Qld*	SA	WA	Tas	NT	ACT	Aust
1997	2,561	1,933	1,101	901	99	283	44	334	7,256
1998	2,826	2,451	1,365	1,050	211	306	52	566	8,828
1999	3,506	1,654	406	1,127	247	301	122	425	7,788

* Prior to 1999, Queensland hours have been adjusted to the national percentage of RPL for publicly owned TAFE and other government providers.

Non-assessed modules

Some modules do not involve a formal assessment but require students to spend time undertaking a particular activity. These modules include work experience and field placement, tutorial or learning support, job-seeking (where the objective is to assist the student obtain employment) and situations where the student at the time of enrolment elects to attend classes but not be formally assessed (i.e. 'observer' or 'auditor' enrolments).

If the student attends for the required time an outcome which acknowledges successful completion of the activity is reported. In 1999 these outcomes comprised 4.5% of enrolments with a known outcome and the number reached 434,400 (Table C1.7). Some variation among the States and Territories occurs, as a result of differences in delivery and support arrangements and business practice.

Table C1.7: Non-assessed subjects with a successful completion: by State/Territory, 1999

Year	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
Total enrolments	171,557	107,048	79,521	37,959	33,584	1,744	39	2,918	434,370
% of all enrolments with known outcomes	5.0	4.3	5.2	4.6	3.9	0.7	0.0	1.9	4.5
Total hours	5,923,258	4,188,703	2,248,243	1,177,628	1,984,858	50,648	945	192,521	15,766,804
% of all hours with known outcomes	5.4	5.0	4.8	5.1	7.1	0.7	0.0	3.6	5.1

Stocks of vocational education & training skills against desired levels

This key performance measure - stocks of vocational education and training skills against desired levels - is a diagnostic, rather than a definitive, measure. As such, it is based on several types of data that together indicate what the demand trend is, and whether the supply trend is similar.

The system tries to measure existing demand, and predict future demand, for skills, so that action can be taken to meet it. Although labour markets have their own long-term mechanisms to balance the demand and supply of labour, any short-term over- or under-supplies of skills cost individuals, enterprises, industry and society as a whole.

The range of indicators that go toward this measure reflect:

- the demand for skills (such as factors influencing economic activity, unemployment, differential growth in output, employment and job vacancies in industry sectors and occupations, changes in skill quality and the age profile of the workforce)
- the supply of skills (comprising the size of the labour force, changes in hours worked, the qualifications and skill profile of the workforce and numbers of apprentices and trainees)
- skills gaps (such as job vacancies, skill needs of emerging industries [including international comparisons] and the level of unmet demand for entry to vocational courses [taking into account the vocational education and training sector is not responsible for providing the training required to meet all of the country's skill needs]).

Factors influencing the demand for skills

Economic growth, employment and job vacancies

The state of the Australian economy and state of the labour market directly affect the demand for vocational education and training.

Australian economic growth averaged 4.2% in 1999, a rate above the long-term trend. Australian population growth (an important influence on economic activity) was around 1.3% during 1998-99, with immigration contributing to half the increase in population. As was the case in 1998, economic growth in 1999 was entirely due to increased domestic demand because of a 1.2% decline in net exports over the year.

The decline in the economy's unused capacity continued in 1999, leading to a fall in unemployment. Unemployment averaged around 7.3% in 1999, compared with 8% in 1998.

There was only a minimal increase in the total number of job vacancies in 1998-99, compared with the number in 1997-98. However, the number of job vacancies per thousand unemployed (124.5) reached the highest level of the decade in 1998-99. The number of job vacancies rose in the second half of 1999, and by November had reached a peak of 103,100 (seasonally adjusted) compared with 97,100 in November 1998[1]. The Reserve Bank of Australia reported that there was a small amount of evidence that the strength of the labour market was leading to skills shortages in some areas[2].

The economic environment in 1999 differed between industry sectors and consequently between States, Territories and regions. The different economic growth rates (measured as differences in gross

[1] ABS, *Australian Economic Indicators*, cat no 1350.0, March 2000.

[2] *Reserve Bank Bulletin*, November 1999.

State and Territory product and shown in Table D.19 in Part D) reflected differences including population growth and resource endowments between States and Territories. Notwithstanding the mobility of skills between different parts of Australia, the differences in the economic profiles of States and Territories means that training needs differ across the nation.

Growth across industry sectors

The services sector dominates economic activity.

The services sector continued to dominate industrial output in 1998-99. The sector contributed 76% of output in 1998-99, while the manufacturing sector accounted for 15%. The mining and agriculture, forestry and fishery sectors contributed 5% and 4% of output. The government sector strengthened during 1998-99, reflecting activity associated with the Olympic Games, higher levels of spending on defence and fewer privatisations compared with recent years.

The property and business services industry made the largest contribution to Australia's gross domestic product, followed by finance and insurance, construction, and health and community services. The size of these industry sectors and their growth rates highlighted the growing dominance of the services sector of the economy.

There are regional differences in the importance of service industries across Australia, with property and business services contributing 13% towards total factor income in NSW during 1998-99, compared with only 5% in Tasmania (see Table D.19 in Part D).

Table D.20 in Part D shows growth rates for the major industry sectors for the most recent year, and for the previous five years. The strong expansion in agriculture (around 9% for the year) was due to recovery from drought conditions. This recovery was also reflected in the strong growth of the wholesale trade sector. The growth in the communications sector was due to the rollout of new and expanded services. Government services and mining declined during the year. While construction overall increased by 6% in 1998-99, there was a slowing of non-building construction over 1999, reflecting the weak mining and mineral processing industries. The growth in dwelling construction could be largely attributed to some housing starts being brought forward in anticipation of higher prices after the introduction of the GST.

Employment growth across sectors

Demand for vocational education and training services is influenced, among other things, by the relative size of an industry, the proportion of the labour force that holds a vocational qualification, the growth of employment in the industry and occupational attrition rate.

The dominance of the service sector's contribution to Australia's output is also reflected in its employment levels. The services sector accounted for 81% of the labour force in 1998-99. The retail, manufacturing and property and business services industries are the largest employers of people in Australia, whilst the smallest employers are the utilities and mining and communication services sectors (see Figure D.1 in Part D). The manufacturing, construction, retail and business services industries have the highest proportion of employees with a vocational qualification as their highest qualification attained. These industries will continue to require skills from the vocational education and training sector, although not all these industries are experiencing employment growth.

By comparing an industry's job vacancies (as reported by the Australian Bureau of Statistics) with its share of employment (as detailed in Figure D.1 in Part D), an indication of which industries are likely to increase their demand for vocational education and training can be gained. In May 1999, the property and business services, cultural and recreational services, government administration and defence sectors were experiencing employment growth and a higher share of job vacancies. This was different to the previous year, when the retail trade and construction industries also had relatively high levels of job vacancies.

Table C2.1: Average annual rate of employment growth: by industry, for one year May 1998 to May 1999 (per cent)

	Average annual rate of growth
Agriculture, forestry & fishing	3.6
Mining	-12.4
Manufacturing	-2.5
Electricity, gas & water supply	1.7
Construction	4.6
Wholesale trade	-2.8
Retail trade	6.4
Accommodation, cafes & restaurants	-1.1
Transport & storage	5.2
Communication services	6.5
Finance & insurance	-6.9
Property & business services	3.5
Government administration & defence	9.8
Education	2.6
Health & community services	-1.0
Cultural & recreational services	6.2
Personal & other services	-2.9
All industries	1.8

Source: Australian Bureau of Statistics catalogue number 1350.0.

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Employment growth by occupation

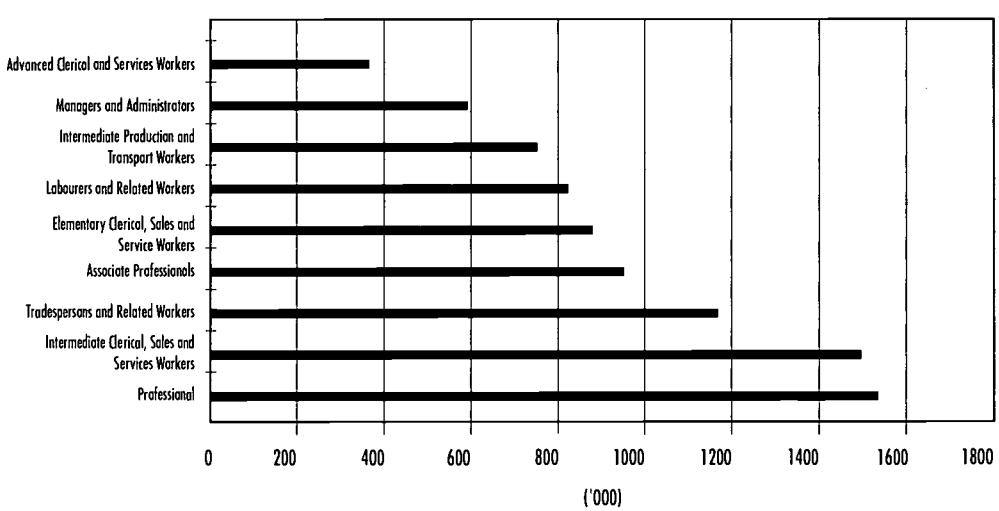
Employment by occupational group in May 1999 in order of size is shown in Figure C2.1. The largest occupational groups in Australia are professionals, intermediate clerical, sales and service workers, and tradespersons and related workers.

The occupational classification used by the Australian Bureau of Statistics provides a measure of the skill quality of the Australian workforce. Occupational skills can be classified into:

- high-skill occupations (managers, professionals and associate professionals)
- medium-skill occupations (tradespersons, advanced clerical workers and intermediate clerical and service workers)
- low-skill occupations (intermediate production and transport workers, elementary clerical and service workers and labourers).

The Department of Industry, Science and Resources[1] has estimated that the proportion of low-skilled employees in the workforce remained at about 29% of the workforce between 1986- 1999. During this time, the percentage of high-skilled workers increased from 33% to 36%, while the percentage of medium-skilled workers fell from 38% to 35%. These changes in skill quality are not consistent across all industry sectors. Changes in skill quality indicate the dynamic and changing nature of skills required in particular industries and the need for a responsive vocational education and training system.

Figure C2.1: Occupational employment share: by occupational groupings, Australia, May 1999



Source: Australian Bureau of Statistics, 1999, *Transition from Education to Work Australia*, May 1999, catalogue number 6227.0.

[1] *Industry brief: manufacturing Sector*, Department of Industry Science and Resources, March 2000.

Age profile of the workforce

Re-skilling of older workers will become increasingly important.

The average age of the Australian workforce is increasing. This has implications for the vocational education and training system and the demand for skills, because older workers may have old or obsolete skills that need to be updated. As the percentage of the population that is younger people of working age declines, the system will increasingly need to meet the reskilling needs of older workers. Older workers enter the vocational education and training system to acquire specific skills, and tend to complete some units of competency rather than a whole qualification.

The age profile of the Australian labour force is shown in Table D.21 in Part D. In May 1999, 57% of the Australian labour force was over 35 years old. A high percentage of workers in agriculture, utilities, education, transport, government and health and community services was over 45 years old.

FACTORS INFLUENCING THE SUPPLY OF SKILLS

Size of the labour force

The labour force grew by about 1.3% in 1998-99, a rise of 0.4% above 1997-98. Although the overall labour force participation rate for all workers in 1998-99 remained around the 1997-98 rate of 63.1%, the male labour force participation rate declined slightly to 72.8% in 1998-99, while the female labour force participation rate rose slightly to 53.9%. After three successive years of decline, the number of 15-19 year olds employed full-time rose by 0.8% in 1998-99. The rise in full-time employment of this age group reflected the overall improvement in the labour market.

Increase in immigration during 1999 implies an increase in the overall stock of skills in the economy.

Immigrants are an important source of labour and skills for the economy. Net immigration to Australia in 1998-99 totalled 117,300 people, a 35% increase over net immigration in 1997-98 and the highest level of net immigration for the decade. The contribution of immigration to population growth is important as, other things being equal, a relatively high rate of immigration implies skills are being introduced into Australia leading to an increase in the overall stock of skills in the economy[1].

Part-time and casual employment

Although much of the growth in employment in 1999 was in full-time employment, part-time employment (3.4%) continued to grow at a faster rate than full-time employment (1.2%).

Less than 74% of the labour force was employed full-time during May 1998, compared with 76% five years earlier (see Table D.22 in Part D). However, growth in part-time employment is not consistent across all industry sectors. During 1999, full-time employment grew in the cultural and recreational services industry, while part-time employment declined in this industry. In the accommodation, cafes and restaurants industries, full-time employment declined by 8% while part-time employment grew by 7%.

[1] ABS, *Australian Economic Indicators*, catalogue no 1350.0, March 2000.

These trends have implications for the delivery of vocational education and training because part-time and casual staff require flexible training arrangements so that they can attend courses. Part-time and casual employees tend to fund their own training, while full-time employees are usually supported by their employer. Also, employees in service industries (a high percentages of whom work part-time) need broader generic skills like communication and teamwork rather than specialised machine or process-oriented skills.

Number of apprentices and trainees

The numbers of apprentices and trainees are indicators of anticipated growth in the stock of skills. Between 1995-1998, all major occupational groups (except the tradespersons and related workers, and managers and administrators categories) had at least 10% annual growth in their numbers of apprentices and trainees. The tradespersons and related workers occupation category had the lowest annual growth rate of all major occupation groups (1.5%) between 1995-1998. Within this occupational category, the construction tradespersons, other tradespersons and skilled agricultural and horticultural workers categories shrank, while the food tradespersons category grew by 8%[1]. For specific occupations, changes in the number of commencements provide an indicator of occupations or regions where there may be skills shortages in the future.

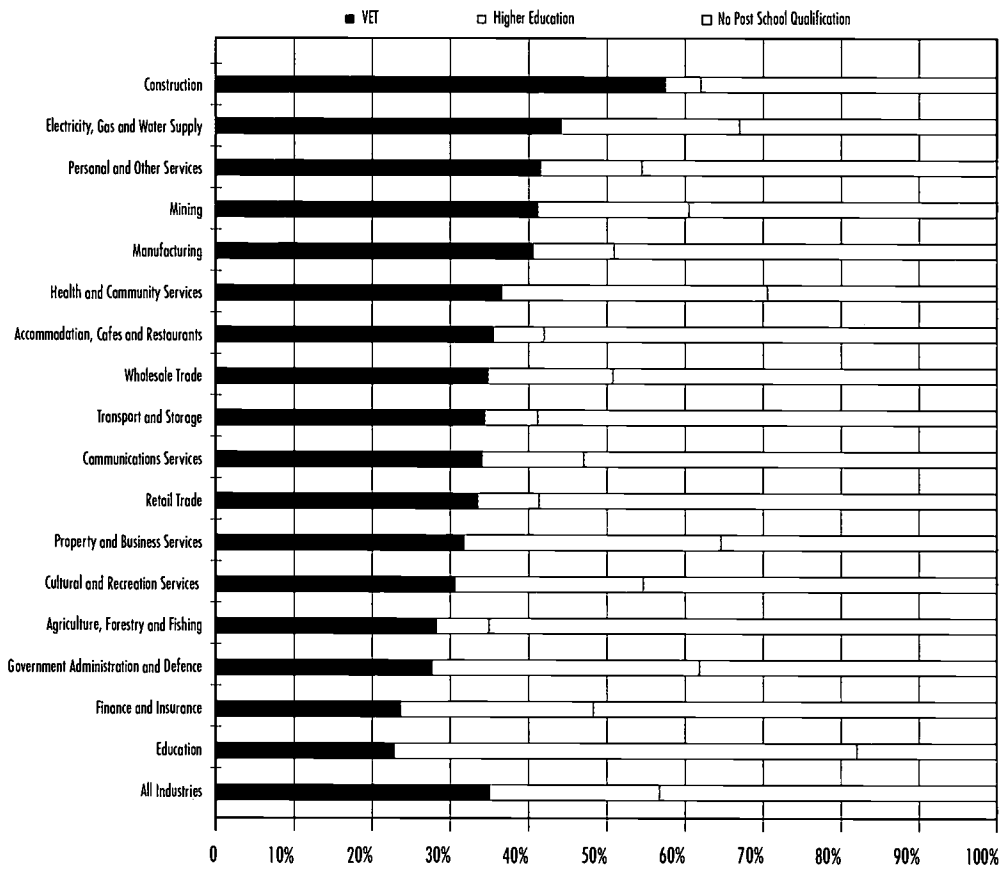
Qualifications profile

The 'highest level of qualification attained' (as measured by the Australian Bureau of Statistics) provides at best a crude measure of the stock of skills held by the labour force. Australians collectively have an enormous amount of job-related skill that was acquired on-the-job or through life generally, and that is not reflected in the qualifications they hold. Also, many people (especially older workers) use the system to do a small number of units of competency or modules, which add to and update their skills, but which do not show up in the qualifications data. As well, the qualifications data reports on the 'highest level of qualification attained' which may not be the qualification most relevant to the person's work. Furthermore, the proportion of the labour force with a vocational qualification is understated since the Australian Bureau of Statistics reports the 'highest completed level of education', rather than the number of people holding a vocational qualification.

The qualifications profile of the Australian labour force aged 25-64 as at May 1999 is shown in Figure C2.2. The profile shows that 56% of them had post school qualifications and that 35% had a vocational education and training qualification. A further 21% had a university qualification. The industry sector with the highest level of vocational education and training qualifications held was the construction industry (with 57% of all employees).

[1] NCVER (2000), *Australian apprentice and trainee statistics: skills supply to the trade industries 1995-1999.*

Figure C2.2: Highest educational attainment of the Australian labour force: percentage of the labour force aged 25- 64, by industry, May 1999



Source: Australian Bureau of Statistics, unpublished data from the *Transition from Education to Work Survey*, Australia, May 1999.

SKILLS GAPS

Productivity growth relies on improved skills. Australia's labour productivity has grown by an average 2.4% during the course of the 1990s economic expansion. This productivity growth has been higher than in previous expansions[1].

Increase in skill quality in economy as share of high skilled workers increases.

The Department of Employment, Workplace Relations and Small Business compiles a monthly skilled vacancy index[2], based on a count of skilled vacancies in the major metropolitan newspapers. During the year, the number of skilled vacancies increased by almost 10%. The strongest growth in the skilled vacancy index in 1999 was recorded in Western Australia (22%), South Australia (15%), Victoria (10%) and NSW (10%). Of the major occupational groupings, trades recorded the strongest rise (20%) followed by professionals (5%), while associate professionals declined by (18%). The dominance of employment growth in the services sector is also reflected in its occupational vacancies. The strongest rises for individual occupations were for chefs (55%), construction trades (55%), food trades (44%) and accountants and auditors (16%)[3]. As well, there are projections of continuing strong employment growth in the medium term in the information technology and telecommunications industry[4]. The vocational education and training system provides many of the skills for these occupations, so can expect increasing demand.

Skill needs of emerging industries

Detailed investigation of skills shortages in the retail motor industry, in electrotechnology and engineering conducted in 1999-2000 have highlighted the potential for skills shortages in a number of industries[5].

Skill shortages in electro-technology trade areas and in new trades are developing.

Skills shortages can arise because of lags in the formation of new skills required by the workforce to use new technology, adopt new approaches to manufacturing and logistics, and respond to changes in the management of work. These things require new skills, and the upgrading of existing skills.

Skill shortages have been identified in electrotechnology, particularly for voice and data communications, and in electronic technology. New trades such as the higher engineering trade are being developed as a response to the new technology. The vocational education and training system must be alert to the training needs of emerging industries and the changing requirements of existing trades.

[1] *Reserve Bank Bulletin*, November 1999.

[2] The skilled vacancy index is based on a count of skilled vacancies in the major metropolitan newspaper of each State and the Northern Territory.

[3] Department of Employment, Workplace relations and Small Business, *Skilled Vacancy Index*, Jan 2000.

[4] Morgan and Banks Job Index for the Feb to April quarter, 2000.

[5] see Engineering Skills Shortages, report by the Engineering Working Group of the Australian Industry Group, 2000.

International comparisons

International data on 'highest education attainment of the labour force aged 25-64' is provided in Table C2.2. Because of differences in data definitions and variations in collection methods between countries, it is difficult to measure the gap (positive or negative) between Australia's stock of skills, and that of other countries. Furthermore, international comparisons do not show differences between countries on unstructured skill acquisition at workplace, or through formal short training courses that do not lead to a qualification, or indeed on the broader picture of lifelong learning.

However, the figures do suggest that in Australia, higher education dominates the non-university tertiary education sector in terms of post school qualifications attained by the workforce.

Table C2.2: International comparisons: Highest completed level of education: percentage of the labour force aged 25- 64 years, 1998

Country	No post compulsory		Post compulsory school		Total	
	Less than upper secondary	Upper secondary education	Non-university tertiary education	University-level education	Total post-compulsory (incl upper secondary)	
Australia	38	33	10	19	62	100
Canada	16	28	36	21	85	100
United States	11	51	9	29	89	100
New Zealand	23	41	22	14	77	100
Denmark	17	54	22	6	82	100
Finland	26	41	18	15	74	100
France	33	43	11	12	66	100
Germany	12	56	15	16	87	100
Italy	47	36	6	12	54	100
Netherlands	28	43	x	28	71	100
Portugal	79	11	3	8	22	100
Sweden	21	49	16	14	79	100
United Kingdom	14	59	9	17	85	100
Czech Republic	11	78	x	12	90	100
Norway	14	57	3	26	86	100
Switzerland	16	59	10	15	84	100
Country mean (b)	32	42	10	16	68	100

b) the country mean includes the following countries that are not reported in the table: Korea, Austria, Belgium, Greece, Hungary, Ireland, Iceland, Japan, Mexico, Luxembourg, Spain, Poland and Turkey.

x) data not applicable or included in another column of the table.

Source: *OECD, Education at a Glance: OECD Indicators*, 2000, table A2.1b, p.34.

Unmet demand for VET

The vocational education and training system is increasingly focused on the needs of its clients, who are students and enterprises. Although public funds are primarily spent on areas where there are skill shortages (as well as areas with employment opportunities for students) the system also provides for those who study in areas with poor employment prospects. This makes it difficult to accurately estimate (both conceptually and methodologically) unmet demand for vocational education and training.

Those who were unable to get into vocational education and training in 1999 amounted to 3.6% of all those who did participate in 1999.

Student demand (not considering the needs of enterprises and industry) is measured by the Australian Bureau of Statistics' survey Transition from Education to Work. Estimated unmet demand for both publicly-funded and privately-funded training is shown in Table C2.3. This includes a small number of people who did not meet minimum entry requirements for the institution to which they applied.

Of the 92,300 people unable to gain a place in post-school education and training in 1999, almost two-thirds (58,900) unsuccessfully applied to do vocational education and training. This figure amounts to 3.6% of all those who did participate in vocational education and training in 1999. Half of the people (45,800) who were unable to gain a place in post-school education and training in 1999 had applied for a place at TAFE. There remain more people wanting to do vocational education and training than the system can currently accommodate.

Table C2.3: Unmet demand for post-school educotion ond troining: by provider sector, 1996-1999 (persons)

	1996	1997	1998	1999
TAFE	48,300	35,300	35,200	45,800
Other vocational education and training*	13,800	12,800	12,900	13,100
Total vocational education and training	**62,100**	**48,100**	**48,100**	**58,900**
Higher education	25,300	18,300	22,900	20,000
Other education institutions	19,000	8,700	12,500	13,400
Total unmet demand	106,400	75,100	83,500	92,300
Total vocational education and training enrolments ('000)	1,355	1,459	1,535	1,647
Unmet demand for VET as a percentage of total VET enrolments	4.6%	3.3%	3.1%	3.6%

Confidence limits at the 95 percent significance level are shown in Part D, Table D.23.

Source: Australian Bureau of Statistics, *Transition from Education to Work Australia*, catalogue number 6227.0, unpublished data and confidence intervals supplied by ABS.

* Includes persons wishing to enrol in a program which does not (of itself) result in a recognised qualification. Vocational education and training enrolment is on a module/unit of competency basis and many students enrol only in the programs they need to enhance their skill levels.

INTRODUCTION

Employer views of, and experience with, the vocational education and training system and its graduates are a key measure of the effectiveness of Australia's training system for industry. Employers want vocational education and training to equip workers with the competencies to effectively contribute to their business, both now and in the future.

The criteria used to measure employer views are:

- employer views on the appropriateness of vocational education and training graduates' skills
- employer perceptions of training
- employer satisfaction with the vocational education and training provided.

In this chapter, the views are reported of:

- employers of recent vocational education and training graduates
- employers with no vocational education and training graduate employees.

For employers of recent graduates, additional information is presented about their views of the relevance and quality of course delivery and graduates' skills.

The data in this chapter is derived from the *1999 National Survey of Employer Views on Vocational Education and Training*. This is the third such survey, with previous surveys conducted in 1995 and 1997. Employers of recent graduates were defined as those with at least one employee who had completed a vocational education and training course of at least 200 hours within the two years prior to the survey[1].

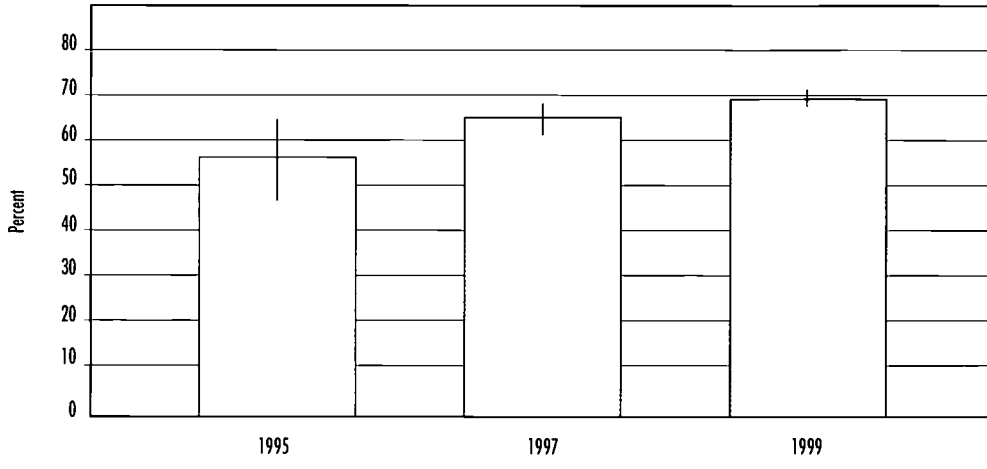
RELEVANCE OF TRAINING TO THE NEEDS OF EMPLOYERS OF RECENT GRADUATES

Skills need to be relevant

Employers' views on the relevance of vocational education and training graduates' skills have improved steadily since 1995. Figure C3.1 shows that, in 1999, 69% of employers of recent graduates agreed that 'the system is providing graduates with skills appropriate to employers' needs'. This has risen since 1995 when 56% of employers of recent vocational education and training graduates held this view.

[1] In the 1999 survey, the sample size was 3,558 employers. For the first time, a sample of 2,495 employers with no graduate employees was also surveyed. Allowances should be made for sampling variability when interpreting the results of the survey. Comparisons in the text have been made at the 95% confidence level only. As a result small differences that appear in the tables or graphs may not be 'real' or statistically significant and should therefore be interpreted with care. Information on standard errors and sampling variability is included in Part D.

Figure C3.1: Employers of recent VET graduates - agreement with the statement 'the VET system is providing graduates with skills appropriate to employers' needs': Australia, 1995, 1997 and 1999 (per cent agree)



As shown in Table C3.1, this improvement occurred in virtually all States and Territories. The table looks (by jurisdiction) at the perceptions of employers of recent graduates of the appropriateness of their skills.

Table C3.1 Employers of recent VET graduates - views on the appropriateness of VET graduates' skills, States and Territories, 1995, 1997 and 1999: by State/Territory (per cent)

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
	Per cent who agreed/disagreed that the VET system is providing graduates with skills appropriate to employers' needs (a)								
1995									
Agree	56	54	54	59	54	66	50	55	56
Disagree	26	31	22	13	19	21	29	18	25
1997									
Agree	65	62	67	65	66	64	61	58	65
Disagree	19	20	16	21	19	18	22	20	19
1999									
Agree	73	64	71	63	70	64	76	72	69
Disagree	9	17	14	17	11	19	11	12	13

(a) Percentages do not total to 100 due to 'can't say' and 'neutral' responses.

For a guide to the allowance that should be made for sampling variability for 1999 data, refer to the Standard Error Tables in Part D for KPM3.

Size of business influences

Employers' views of the appropriateness of graduates' skills differed little between small employers (1 to 19 employees), medium employers (20 to 99 employees) and large employers (over 99 employees). The proportions of employers of recent graduates who agreed that 'graduates' skills were appropriate to employers' needs' were approximately 68% of small, 71% of medium and 75% of large businesses.

VIEWS OF EMPLOYERS OF RECENT GRADUATES

General views on training

Overall, employers' general views about vocational education and training have remained stable over the three surveys. Table C3.2 below shows the views of employers of recent graduates about the relevance of training, value for money and vocational education and training qualifications. One exception to this stability already noted is the improvement in employers' views on the relevance of graduates' skills. Also positive are the slight decline since 1997 in the proportion of employers who feel the system does not take into account their needs (from 39% to 32%) and the proportion who believe it is difficult to tell what a person can actually do from their qualifications (from 77% to 68%).

In 1999, employers of recent VET graduates were more positive about the VET system taking their needs into account than they were in 1997.

One area viewed less favourably by employers was course content, with 81% feeling they should have more input into course content. The proportion of employers holding this view has been fairly consistent over the three surveys (83% in 1995 and 81% in 1997).

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Table C3.2: General views on vocational education and training by employers of recent graduates: Australia, 1995, 1997 and 1999, by attitude statement (per cent agree)

Attitude statement	1995	1997	1999
RELEVANCE OF TRAINING			
The VET system is providing graduates with skills appropriate to employers' needs	56	65	69
Employers should have more input into course content	83	81	81
The VET system does not take into account the needs of employers	40	39	32
The VET system needs to provide more practical job skills	77	75	77
There should be more work experience or work placements as part of vocational training	83	84	85
VALUE FOR MONEY			
Training pays for itself through increased worker productivity	72	73	74
It is more cost effective to recruit trained people than to train people on the job	46	51	48
QUALIFICATIONS			
On-the-job skills are more useful than skills obtained through formal education	68	62	66
Qualifications should be based on what the person can actually do rather than how many years of training they have completed	84	85	82
It is difficult to tell what a person can actually do from their educational qualifications	81	77	68

For a guide to the allowance that should be made for sampling variability for 1999 data, refer to the Standard Error Tables in Part D for KPM3.

Views on value of training

Almost three quarters of employers agreed that training pays for itself through increased worker productivity.

Across jurisdictions, there was little variation in employers' views on the value of training. This can be seen in Table C3.3 below which shows employers' level of agreement with several statements on the value of training, by jurisdiction. In Tasmania, the proportion of employers agreeing that 'training pays for itself through increased worker productivity' was below the national figure, and in Queensland the proportion agreeing that 'on-the-job skills are more useful than skills obtained through formal vocational education' was above the national figure.

Table C3.3: Employers of recent VET/ graduates - views on the value of training: States and Territories, 1999, by State/Territory (per cent)

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
Training pays for itself through increased worker productivity									
Agree	76	77	69	72	74	65	81	73	74
Disagree	10	12	11	14	9	18	11	15	11
On-the-job skills are more useful than skills obtained through formal vocational education									
Agree	62	66	80	65	61	65	58	54	66
Disagree	10	10	8	12	19	14	13	16	11
It is more cost-effective to recruit trained people than to train people on the job									
Agree	44	45	54	50	51	46	61	50	48
Disagree	24	22	25	28	31	36	16	26	25

(a) Percentages do not total to 100 due to 'can't say' and 'neutral' responses.

For a guide to the allowance that should be made for sampling variability, refer to the Standard Error Tables in Part D for KPM3.

Overall satisfaction

The overall satisfaction of employers with vocational education and training providers is improving. In 1999, 83% of employers of recent vocational education and training graduates rated their overall satisfaction as six or more on a 10-point scale. This compares with 78% in 1997. In 1999, the mean score for employers of recent graduates was 7.2, while in 1997 the mean score was 6.7.

A majority of employers are satisfied with the performance of vocational education and training providers.

66

Table C3.4 below reports, by jurisdiction, the proportion of employers of recent VET graduates who gave a score of six or more for their overall satisfaction, along with the overall mean rating.

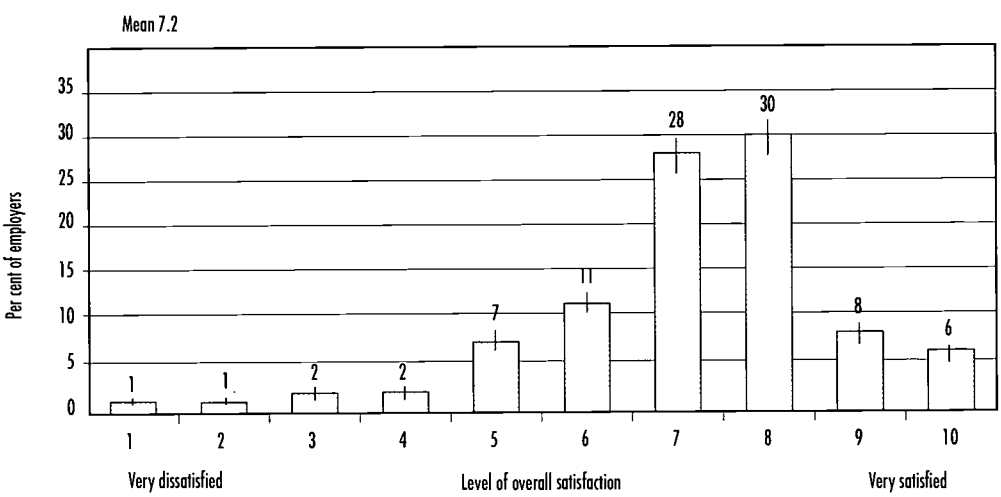
Table C3.4: Employers of recent VET graduates - overall satisfaction with VET providers, States and Territories, 1997 and 1999: by State/Territory (per cent)

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
1997									
Percentage rating six or higher	72	88	77	84	74	79	70	75	78
Mean score	6.5	7.1	6.5	6.8	6.7	6.7	6.4	6.5	6.7
1999									
Percentage rating six or higher	87	77	82	87	82	74	85	86	83
Mean score	7.3	7.1	7.1	7.3	7.0	6.7	7.0	7.0	7.2

For a guide to the allowance that should be made for sampling variability in 1999 data, refer to the Standard Error Tables in Part D for KPM3.

Figure C3.2 below reports the percentage distribution of employers' overall satisfaction in 1999.

Figure C3.2: Employers of recent VET graduates - overall satisfaction with VET providers: Australia, 1999, by level of overall satisfaction (per cent)



Views on provider service

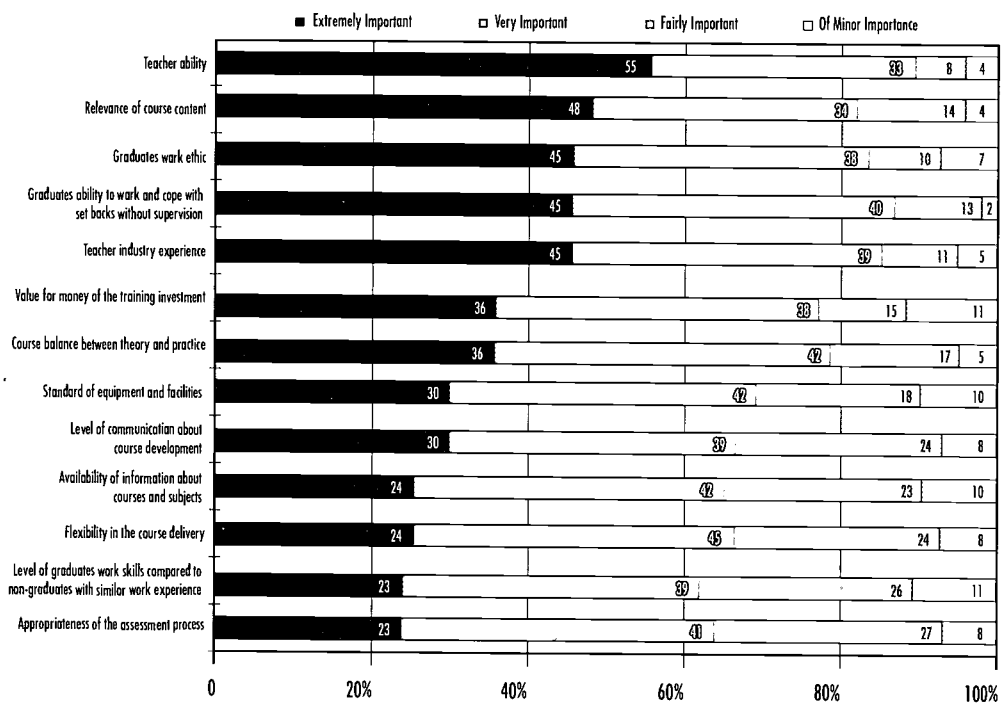
The 1999 survey enables an analysis of the differences between employers with direct experience of vocational education and training (employers of recent graduates) and those without direct experience (employers with no graduate employees).

Across the aspects of course delivery and graduates' skills, employers were more likely to regard teacher ability as extremely important.

In the survey, employers of recent graduates were asked different questions, according to whether the graduates completed their course before, or after, starting their current employment. Employers with at least one graduate who completed their course after starting employment were asked for their views on course delivery and graduates' skills. Employers whose graduates all completed their course before commencing their current employment were only asked about the graduates' skills.

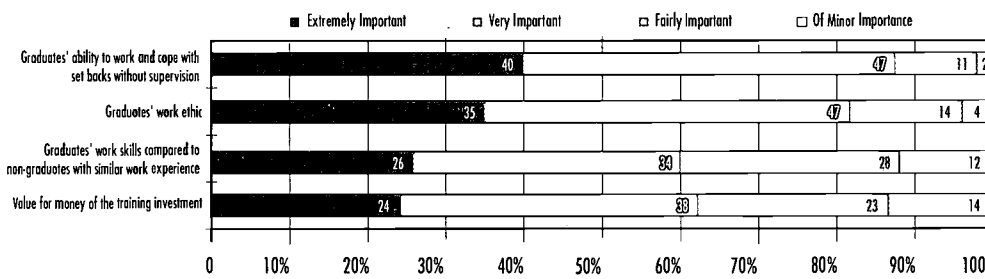
Employers of recent graduates were asked the relative importance they attached to selected aspects of the service offered by training providers. Specifically, they were asked for their views on course delivery and graduates' skills (see Figure C3.3). Teacher ability, teacher industry experience, and graduates' ability to work and cope with setbacks without supervision, were among the aspects more likely to be regarded as extremely or very important.

Figure C3.3: Relative importance of course delivery and graduates' skills: Australia, 1999, by service aspect (per cent)



For employers who were asked for their views on graduates' skills only, Figure C3.4 shows the relative importance they assign to the selected aspects of graduates' skills. 'Graduates' ability to work and cope with setbacks without supervision' and 'graduates' work ethic' were among the skills more likely to be regarded as extremely or very important.

Figure C3.4: Relative importance of graduates' skills: Australia, 1999, by service aspect (per cent)

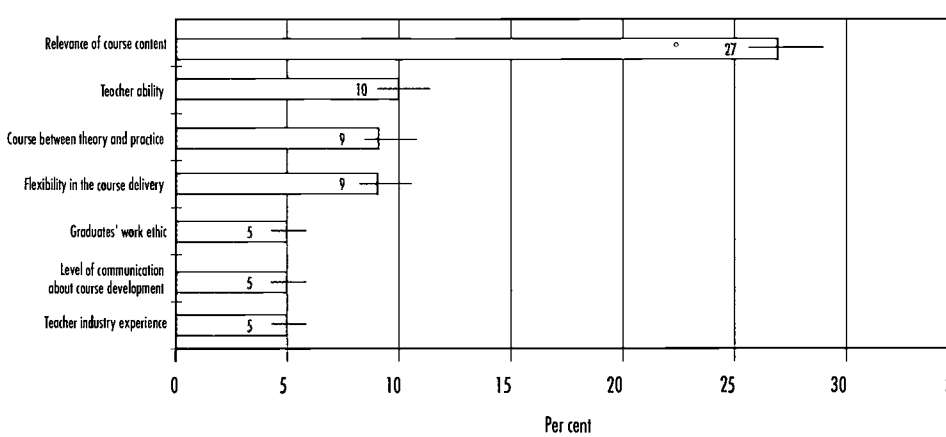


Priorities for improvement in the training system

Employers of recent vocational education and training graduates were asked to nominate the aspect of service that they would most like to see improved. Of those employers asked about course delivery and graduates' skills, most focused on course-related aspects of service, with 'relevance of course content' most commonly nominated (27%) as the highest priority for improvement. Figure C3.5 shows the aspects more-commonly nominated as priority for improvement.

Across the aspects of course delivery and graduate skills, 'relevance of course content' was considered highest priority for improvement by most employers.

Figure C3.5: Employers' priority for improvements across course delivery and graduates' skills: Australia, 1999, by most-commonly cited service aspects (per cent highest priority)



Of those employers who were asked about graduates' skills only, most cited 'graduates' ability to work and cope with setbacks without supervision' as the skill they would most like to see improved (32%). This was followed by 'graduates' work ethic' and 'graduates' work skills compared to non-graduates with similar work experience' (both 22%). 'Value for money' of the training investment was cited least, with just 10% of employers nominating this as their priority for improvement.

Relevance of course content

Employers who were asked their views on course delivery were also asked to rate, in terms of industry training needs, the relevance of the content of courses currently being delivered. This is shown on a four-level scale in Table C3.5, by jurisdiction.

Table C3.5: Employers' views on the relevance of course content: 1999, by State/Territory (per cent)

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
Not relevant to the industry's current needs	8	6	6	7	9	7	10	10	7
Mostly current and useable by the industry	48	28	45	29	31	38	32	40	39
Directly relevant to the needs of the industry	34	46	34	49	44	48	48	36	40
At the leading edge of industry needs	9	16	10	7	10	6	9	9	11
Can't say	1	3	5	7	5	2	2	5	3
Total	100	100	100	100	100	100	100	100	100

For a guide to the allowance that should be made for sampling variability, refer to the Standard Error Tables in Part D for KPM3.

VIEWS OF EMPLOYERS WITH NO VOCATIONAL EDUCATION AND TRAINING GRADUATE EMPLOYEES

A comparison of employers' general views on the relevance of training

Table C3.6 below compares the views about the relevance of training for employers of recent vocational education and training graduates with those of employers with no graduates. There were similar levels of agreement by both groups that 'there should be more work experience or workplacements as part of vocational education and training' and 'the vocational education and training system needs to provide more practical job skills'. A slightly higher proportion of employers with no graduates (74%) agreed that 'on-the-job skills are more useful than skills obtained through formal education', than employers of recent graduates (66%).

While employers with no graduates appear to be less positive than employers of recent graduates as to whether the system is providing graduates with appropriate skills, it should be noted that some 37% of these employers were unable to give a view on this matter.

Table C3.6: Employers' views on the relevance of training: Australia, 1999, by attitude statement (per cent agree)

Attitude statement	Employers of recent graduates	Employers with no VET graduates
The VET system is providing graduates with skills appropriate to employers' needs	69	41
There should be more work experience or work placements as part of VET	85	86
The VET system needs to provide more practical job skills	77	79
On the job skills are more useful than skills obtained through formal education	66	74

For a guide to the allowance that should be made for sampling variability, refer to the Standard Error Tables in Part D for KPM3.

Reasons employers do not have vocational education and training graduate employees

Almost half of employers with no VET graduate believe VET qualifications are not relevant to their industry (ie because of the type of industry eg law firm).

Employers with no vocational education and training graduate employees were asked their reasons for not employing a graduate. Some employers gave more than one reason. Table C3.7 shows that 48% of these employers believe VET qualifications are not relevant to their industry, and that 27% meet all their own training requirements through in-house courses.

Table C3.7: Reasons for not employing VET graduates: Australia, 1999, by reason (per cent)

Reasons for not employing VET graduates	%
These qualifications are not relevant to our industry (eg, law firm)	48
All our training requirements are provided in-house	27
Fully qualified people not required, staff attend only the modules relevant to our operations	15
Have staff currently studying for such qualifications	12
Not aware of training available to suit our requirements	4
We have not been happy with the quality of VET qualifications	2
Other	10
Don't know	4

Some employers gave more than one reason.

For a guide to the allowance that should be made for sampling variability, refer to the Standard Error Tables in Part D for KPM3.

Student outcomes from vocational education and training

Improved employment outcomes and prospects are key measures of how effective Australia's vocational education and training system has been for its students: the vocational education and training system exists to provide people with skills for work.

Individuals primarily do vocational education and training for employment-related reasons. The reasons they give include acquiring a job, holding their current job, performing better in their current job, gaining a skill or qualification that is transferable, acquiring a better-paid or more satisfying job, or gaining the necessary skills to enable admission into another course.

The methods used in this report to measure student employment outcomes and prospects are:

- the measurable change in labour force status that results from successfully doing vocational education and training
- the benefits and improved employment prospects that result from doing vocational education and training, beyond a direct improvement in labour force status (especially important for students who are already in the workforce when they commence training).

The data in this chapter are from the *1999 Student Outcomes Survey*, of students who did vocational education and training in 1998 at a TAFE institute in Australia. This survey is an expansion of the previously- conducted graduate destination survey[1] and was of graduates and (for the first time) module completers. Graduates were defined as students who completed their course in 1998 and graduated with a qualification from a course of at least 200 hours or one semester in duration. Module completers were defined as students who enrolled only in (and successfully completed) part, but not all, of the training necessary to complete a full qualification (at least one module) and had left the TAFE system at the time of the survey[2].

While comparisons can be made between TAFE graduates and TAFE module completers, some differences should be noted. Module completers generally do less training, with a median length of training of five months (compared to 10 months for graduates). Graduates (56%) are more likely to be female than module completers (48%) and graduates (29 years) on average are younger than module completers (34 years). These factors are likely to affect employment-related outcomes, which is discussed under *Student profiles* at the end of this chapter.

[1] The *Graduate Destination Survey* conducted previously covered TAFE graduates only, and was carried out in 1995, 1997 and 1998. The survey questionnaire for TAFE graduates has been almost identical for each of the four graduate surveys, enabling comparisons between much of the data produced. The possibility of broadening the survey in future years to include graduates from non-TAFE providers is currently being investigated. To enable the surveys to measure labour force status effectively, the surveys were held in May, at least six months after respondents completed their course.

[2] A questionnaire was sent to all graduates and 63,198 responded, resulting in a national response rate of 55.8%. A similar questionnaire was also sent to a stratified, randomly selected sample of module completers and 4,152 responded, resulting in a national response rate of 52.4%. Allowances should be made for sampling variability when interpreting the results of the survey. Comparisons in the text have been made at the 95% confidence level only. As a result small differences that appear in the tables or graphs may not be 'real' or statistically significant and should therefore be interpreted with care. Information on standard errors and sampling variability is included in Part D.

The estimates produced from the survey are based on information provided by a sample of students and are, therefore, subject to sampling variability. Sampling error is a measure of the variability that occurs because a sample, rather than the entire population, responds to a survey. That is, they may differ from the results which would have been produced had all graduates or module completers been included and responded to the survey. For a guide to the allowance, which should be made for sampling variability, see Part D. To enable the guide in Part D to be used, the numbers of respondents on which the figures are based have been included in the tables in this section, where appropriate.

A non-response analysis, using a telephone methodology was undertaken on a sample of non-respondents to examine whether any non-response bias exists. The analysis involved comparing mail respondents with a representative sample of non-respondents interviewed by telephone. The non-respondents to the mail questionnaire are more likely to:

- be male
- be employed after the training
- have achieved their main reason for doing the training
- rate each aspect of the training and overall as "good".

The analysis found that while an element of bias does exist it is not large in an absolute sense. For example the proportion employed after training for graduates would increase from 72.8% to 75.8%, while the proportion employed after training for module completers would increase from 67.5% to 69.5%. For more information, refer to Part D.

CHANGES IN EMPLOYMENT STATUS

After completing their course, more graduates are employed.

Many TAFE students combine work and study. They bring to TAFE their current (and past) work experience, and continue working and studying during their course. After completing their course, more graduates are employed, fewer are unemployed and fewer are not in the labour force. Module completers also improve their employment status, although to a lesser extent.

Figure C4.1 below shows the employment status of graduates and module completers, before and after training. The net increase in employment after training for graduates is 8% (percentage points), while for module completers it is 3% (percentage points). Much of this increase is a result of graduates moving from not looking for work, to employment. Module completers who were originally not looking for work did not move to employment at the same rate as graduates.

Figure C4.1: Graduate labour force participation before and after study, Australia, 1999: by labour force (per cent)

	Graduates			Module completers		
Full-time working	37	↑	42	40	← →	40
Part-time working	27	↓	18	23	↓	16
Total working (a) (full-time & part-time)	65	↑	73	65	↑	68
Looking for work (unemployed)	16	↓	13	15	↓	13
Not looking for work (not in labour force)	19	↓	13	18	↓	17
Total (b)	**100**		**100**	**100**		**100**

a) Total working includes 'not stated' for full-time and part-time.

b) Includes 'not stated'

Note: In the figure above, a relatively high proportion (11%) of module completers who were employed after their training did not report whether they were employed full-time or part-time.

WORK AND FURTHER STUDY

After completing their course, TAFE graduates often go on to do further study: many do so while working, others while looking for work, and some as an alternative to working or seeking work. Information for module completers is not shown because, by definition, they have left the TAFE system and are not in further study at the time of the survey.

In 1999, 88% of graduates were working or in further study after their course, compared to 78% before beginning their course. Figure C4.2 below compares the work and study patterns of graduates before and after their course according to whether they were:

- working or studying
- not working and not studying.

After completing their current study, 40% of graduates did further study. The major reasons for undertaking further study are work-related: 'to get a job or own business' (29%), 'to get a better job or promotion' (19%) and 'to get extra skills for my present job' (15%).

Figure C4.2: Change in work and study by TAFE graduates: Australia, 1999, by before and after course (per cent)

	Before course		After course
Working or in study	78	↑	88
Not working and not studying:			
- looking for work	10	↓	7
- not looking for work	12	↓	5
Total	**100**		**100**

OCCUPATION SHIFTS

Vocational education and training provides the opportunity for employed students to move occupations, change jobs and advance in their job after completing their training. Graduates are more likely to move to a higher skilled occupation than module completers. 23% of graduates and 11% of module completers employed both before and after their training moved to a higher-skilled occupation after their training. Students with jobs in the lowest-skilled occupations before commencing their training were more likely to move to more-skilled occupations after their training.

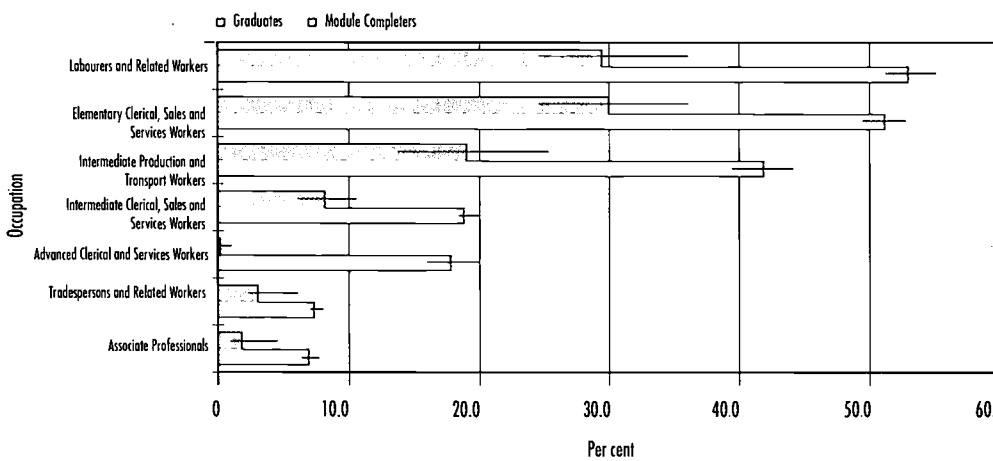
Figure C4.3 shows that about half the graduates who were employed as labourers and related workers (53%), and elementary clerical, sales and service workers (51%) before training moved to higher-skilled occupations after training. The pattern was similar for module completers, although the magnitude of the movement was much less: 30% of both groups moved from their lower-skilled occupations before training to higher-level, skilled occupations after training.

Major areas of movement occurred in the following occupation categories:

- labourers and related workers: 27% of employed graduates moved into the tradespersons and related workers category, and a further 10% moved into the intermediate clerical, sales and service workers category. Module completers for this occupation category moved to the tradespersons and related workers category (12%) and intermediate production and transport workers category (7%) after their training.
- elementary clerical, sales and service workers: 13% of employed module completers moved into the intermediate clerical, sales and service workers category, while many graduates also moved to this same category (23%).
- intermediate production and transport workers category: 22% of employed graduates and 7% of employed module completers moved into the tradespersons and related workers category.
- intermediate clerical, sales and service workers category: 7% of employed graduates moved into the associate professionals category and a further 6% into the professionals category.

The extent of movement to higher-skilled occupations after training is shown below with the broad occupation groups ranked from lowest-skilled levels (labourers and related workers) to the highest-skilled levels (associate professionals).

Figure C4.3: Movement to higher skilled occupations of employed graduates and module completers: by occupation, Australia, 1999 (per cent)



EMPLOYMENT OUTCOMES FOR GRADUATES

States/Territories show improved employment for graduates.

In recent years, about three-quarters of TAFE graduates have reported being in employment six months after completing their training. As Table C4.1 shows, about half (42% to 52%) have been in full-time employment, while small proportions have remained unemployed or out of the labour force (12 to 15%).

Table C4.1: Labour force status of TAFE graduates: at May 1995-1999, Australia, by labour force (per cent)

	1995	1997	1998	1999
Employed (a)	73	71	73	73
Full-time	52	47	48	42
Part-time	18	20	19	18
Unemployed:	15	15	14	13
Not in labour force	12	14	13	14
Total (b)(c)	100	100	100	100
Number of respondents (b)	64,703	60,746	66,607	63,198

a) Includes 'not stated' for full-time/part-time.

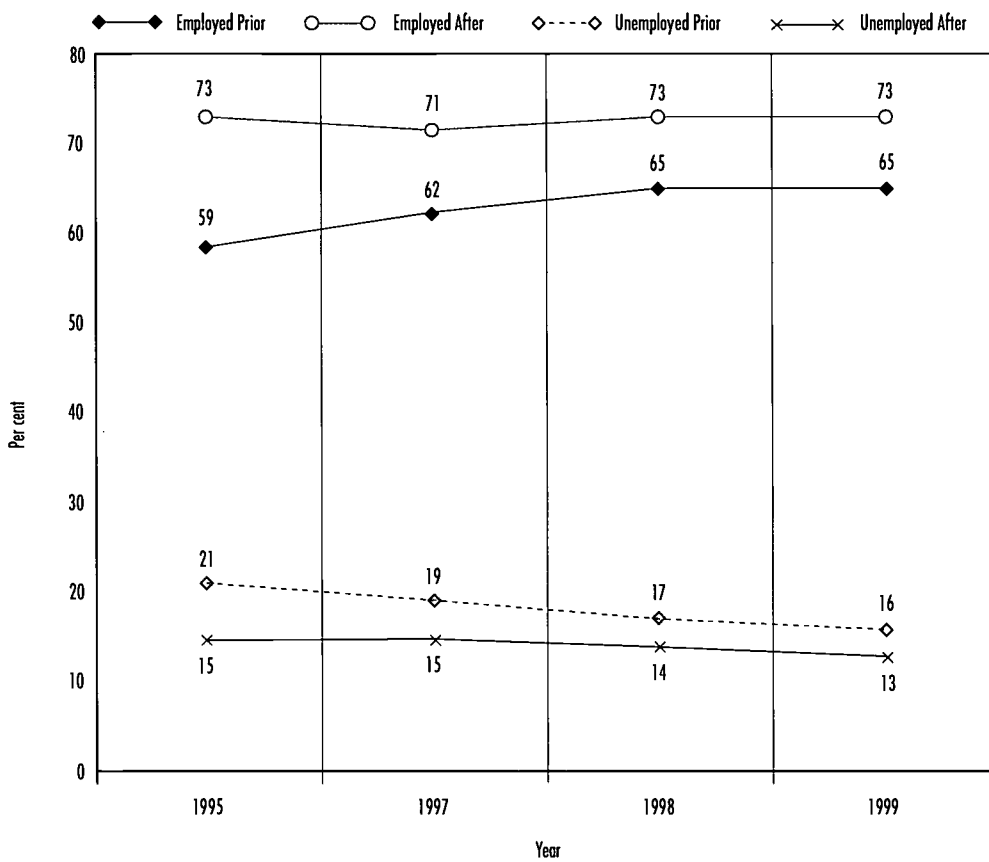
b) Includes 'not stated'.

c) Components may not add to totals due to 'not stated' responses to some survey questions or rounding.

Figure C4.4 shows consistently that the employment status of graduates is better after training than before it. The figure shows the improved employment situation for TAFE graduates six months after they finish training.

Between 1995 and 1999, the employment outcomes for TAFE graduates who were not in the labour force before commencing training were similar to the outcomes for those who were unemployed before starting training. Those not in the labour force before training accounted for between 18% and 20% of TAFE graduates, with these proportions decreasing after training to between 12% and 14%.

Figure C4.4: Labour force status of TAFE graduates prior to training and at May 1995-1999: Australia, by employed and unemployed (per cent)



Outcomes by State and Territory

Table C4.2 shows State and Territory employment outcomes for TAFE graduates as at May 1999. While there are some variations across jurisdictions, the majority of graduates were employed on completing their course. The variations are influenced by factors such as different labour markets, the prior work experience of graduates, the extent of students doing training as part of employment (for example, apprenticeships) or while employed, and the students' reasons for undertaking their courses.

Table C4.2: Labour force status of 1998 TAFE graduates in May 1999: by State/Territory (per cent)

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
Employed	71	75	73	81	71	71	77	74	73
Unemployed	14	12	14	10	12	16	11	14	13
Not in labour force	15	12	12	9	16	12	12	13	14
Total (a)(b)	100	100	100	100	100	100	100	100	100
Number of respondents (a)	29,472	12,457	7,748	4,673	6,016	1,343	313	1,176	63,198

a) Includes 'not stated'.

b) Components may not add to totals due to 'not stated' responses to some survey questions or rounding.

Outcomes for graduates unemployed before TAFE training

Unemployed graduates get jobs after course.

Table C4.3 shows employment rates on completion for graduates who were unemployed before starting their training.

47% of graduates who ere unemployed before their course had work within about six months of completing their course. Some 38% remained unemployed (18% were also in further study), and 14% were not in the labour force (10% were also in further study).

Table C4.3: Employment outcomes for TAFE graduates who were unemployed prior to commencing course: May 1999, by State/Territory (per cent)

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
Employed	44	51	48	57	54	51	49	45	47
Unemployed	40	35	38	31	31	35	37	42	38
Not in labour force	15	13	14	11	14	14	12	13	14
Total (a)(b)	100	100	100	100	100	100	100	100	100
Number of respondents(a)	4,997	1,833	1,164	585	736	267	49	160	9,791

a) Includes 'not stated'.

b) Components may not add to totals due to 'not stated' responses to some survey questions or rounding.

Outcomes for young graduates

Under 25 year olds achieve the greatest gains in employment outcomes after completing their training.

A comparison of the employment outcomes for under 25-year-old graduates with all graduates shows that the under 25-year-olds have achieved the greater gains in employment outcomes.

For under 25-year-olds, full-time employment prospects improved markedly after training (Table C4.4).

Full-time employment increased from 27% before their courses, to 47% after the courses were completed. Part-time employment declined from 34% before their courses, to 17% after the courses. Total full-time and part-time employment increased from 62% before their courses, to 78% after their courses.

After completing their courses, unemployment for graduates dropped from 16% to 11%, and graduates not in the labour force dropped from 21% to 11%.

On the other hand, for all graduates, the increase in employment was more modest. Total employment rose from 65% before their courses to 73% after the courses, and full-time employment increased from 37% to 42%. Unemployment and not-in-the-labour-force dropped 3% and 5% respectively.

For TAFE-module completers, employment improved after course completion, although to a lesser extent than graduates in the under 25 year old group, with employed module completers rising from about 59% before their courses to 68% after the courses. There was little change in the proportion of module completers who were unemployed before the course (18%) and after the course (17%).

Table C4.4: Under 25 year old TAFE graduates and module completers Australia, May 1999: by labour force before and after course (per cent)

	Graduates		Module completers	
	Before course	After course May 1999	Before course	After course May 1999
Employed (a)	62	78	59	68
Full-time	27	47	26	38
Part-time	34	17	32	18
Unemployed	16	11	18	17
Not in labour force	21	11	22	13
Total (b)(c)	100	100	100	100
Number of respondents (b)	24,449	24,449	1,189	1,189

a) Includes 'not stated' for full-time/part-time.

b) Includes 'not stated'.

c) Components may not add to totals due to 'not stated' responses to some survey questions or rounding.

WHY PEOPLE DO A TAFE COURSE

Graduates mostly go to TAFE as a way of entering the labour market.

Module completers mostly go to TAFE to upgrade their skills.

Table C4.5 lists the main reasons provided by students for doing TAFE courses. The most common reasons given were to achieve vocational or work-related benefits. In 1999, 79% of graduates indicated that they had done training for vocational or job-related reasons. A slightly smaller proportion of module completers (67%) also did training for these reasons. Graduates also appear to be more likely to do training as a way of getting a job, while a relatively higher proportion of module completers do training to upgrade their skills. In this respect, graduates were more likely to do training to get a job or for their own business (27% compared to 19%), while module completers were more likely to do training to get extra skills for their job (20% compared to 14%). This is not surprising given that 21% of graduates commenced their training shortly after leaving school, compared with only 11% of module completers.

Table C4.5: Main reason for doing a TAFE course: Australia, 1995-1999, by reason for course (per cent)

	Graduates				Module completers
Main reason	1995	1997	1998	1999	1999(a)
Vocational or work reasons (b):	79	77	78	79	67
To get a job or own business	33	29	28	27	19
To get extra skills for my job	11	13	14	14	20
To try for a different career	11	12	12	13	9
To get a better job or promotion	13	12	12	12	7
It was a requirement of my job	12	11	12	12	12
Non-vocational reasons	21	23	22	20	31
Total (b)(c)	100	100	100	100	100
Number of respondents (c)	64,703	60,746	66,607	63,198	4,152

a) Module completer data not collected prior to the 1999 survey.

b) Components may not add to totals due to 'not stated' responses to some survey questions or rounding.

c) Includes 'not stated'.

Between 1995-1999, 'to get a job or own business' was the most-nominated reason for doing TAFE study, and has slightly declined in the same period. This decline is in line with a fall in under 25 year old TAFE graduates between 1995 (49%) and 1999 (39%), this group being more likely to attend TAFE 'to get a job'. Over the same period, labour market conditions have improved as evidenced in the fall in the national unemployment rate from 8.4% in May 1995 to 7.5% in May 1999[1].

Table C4.6 shows graduates' main reasons for doing TAFE courses, by State and Territory. In all jurisdictions, vocational or work-related reasons dominate. In Tasmania and South Australia, higher percentages of graduates chose a TAFE course for work-related reasons than in the other jurisdictions.

Table C4.6: Graduates' main reason for doing TAFE course: by vocational / non-vocational reason for course, States and Territories, 1999 (per cent)

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
Vocational	78	80	81	86	74	85	78	79	79
Non-vocational	22	19	18	13	26	14	21	21	20
Number of respondents (a)	29,472	12,457	7,748	4,673	6,016	1,343	313	1,176	63,198

(a) Includes respondents who did not answer the question.

[1] Australian Bureau of Statistics, *Labour Force Australia*, catalogue number 6203.0, May 1999.

Achievement of the main reason for doing a course

79% of graduates achieved their main reason for doing course.

Students' views on how training helped them to achieve their objectives is valuable performance information. Table C4.7 shows whether students felt they achieved their main purpose in doing the course. Some 79% of graduates, and 71% of module completers, felt they had wholly or partly achieved their main purpose. Graduates and module completers, who did the course for work-related reasons, mostly reported (77% and 70%) that the course helped them wholly or partly achieve their main reason for doing the course.

Table C4.7: Whether TAFE course helped achieve main reason for doing course: by vocational / non-vocational reason for course, Australia, 1999 (per cent)

	Graduates	Module completers
HELPED ACHIEVE VOCATIONAL REASON FOR COURSE		
Helped wholly or partly to achieve reason	77	70
Did not help	9	17
Don't know yet	13	12
Total (a)	100	100
Number of respondents (b)	49, 926	2,799
HELPED ACHIEVE NON-VOCATIONAL REASON FOR COURSE		
Helped wholly or partly to achieve reason	89	80
Did not help	4	9
Don't know yet	7	10
Total (a)	100	100
Number of respondents (b)	12,828	1,266

a) Components may not add to totals due to 'not stated' or rounding.

b) Excludes 'not stated' to reason for doing course.

Graduates doing the course as a requirement for their job, or to get extra skills for their job, reported very high levels of achievement of their main reason (95% and 94% respectively). Module completers who did their course for these two reasons were also more likely than other module completers to report they achieved their main reason (85% and 89% respectively), although not as high as graduates.

Table C4.7 also compares graduates and module completers who did their course for non-vocational reasons (such as to get into another course, or for personal interest). Again, graduates were more likely to report achieving their main reason.

Benefits received as a result of course

Graduates in employment are more likely than module completers to report receiving a benefit.

Similarly, a measure of the tangible benefits that accrue through the successful completion of training is an important indicator of system performance. In 1999, 76% of full-time employed graduates and 66% of part-time employed graduates who undertook their course for work-related reasons reported receiving at least one benefit as a result of completing training. Module completers were less likely than graduates to report perceived benefits, although around half of them did so: 54%of full-time employed and 45% of part-time employed).

Table C4.8: TAFE graduates and module completers who undertook courses for work-related reasons, employment benefits received: by full-time / part-time employed, Australia, 1999 (per cent of full-time and part-time)

	Graduates		Module completers	
Perceived employment benefits received *	Full-time employed	Part-time employed	Full-time employed	Part-time employed
An increase in earnings	35	18	13	7
A promotion (or increased status at work)	23	9	15	6
Got a job	28	32	16	10
Change of job	19	21	10	8
At least one job related benefit	76	66	54	45
None of the above benefits	23	33	44	53
Number of respondents (a)(b)	23,493	8,714	1,336	490

a) Includes perceived benefits 'not stated'.

b) Excludes not stated to full-time and part-time employment.

* Respondents could give more than one reason.

Perceived relevance of training to employment

70% of graduates consider course relevant to job.

The perceived relevance of completed training in the student's workplace is another measure of particular interest. Of the graduates who were employed at May 1999, 70% considered their course to be highly-relevant or of some relevance to their main job, while 20% considered their course to be of very little or no relevance to their main job. By comparison, around 57% of module completers considered their course to be highly relevant or of some relevance to their main job, and 34% considered their course to be of very little or no relevance.

Graduates working full-time (84%), males (74%) and graduates doing the course for work-related reasons (74%) were more likely to regard their course as being highly-relevant, or of some relevance to their main job.

OCCUPATION OUTCOMES

Most common occupations: intermediate clerical and sales, tradespersons and related workers.

As shown in Table C4.9, TAFE graduates employed as intermediate clerical, sales and services workers (25%) account for the largest single occupation group among respondents, and this is just ahead of tradespersons and related workers (21%). Module completers were also more likely to be in these two occupation groups (19% and 17% respectively).

Table C4.9: Occupation of employed TAFE graduates and module completers: by occupation category, Australia, 1999 (per cent)

Occupation category (ASCO 2nd edition)	Graduates	Module completers
Labourers and related workers	6	10
Elementary clerical, sales and service workers	8	9
Intermediate production and transport workers	4	7
Intermediate clerical, sales and service workers	25	19
Advanced clerical and services workers	4	3
Tradespersons and related workers	21	17
Associate professionals	12	10
Professionals	12	12
Managers and administrators	3	5
Total (a)	100	100
Number of employed respondents (b)	45,989	2,887

a) Components may not add to total due to 'not stated' or rounding.

b) Includes respondents 'not stated' to occupation.

Occupations in which TAFE graduates were more likely to be employed full-time were tradespersons (94%) and managers (88%). Occupations in which they were more likely to be employed part-time were elementary clerical and sales (66%) and intermediate clerical, sales and service workers (44%).

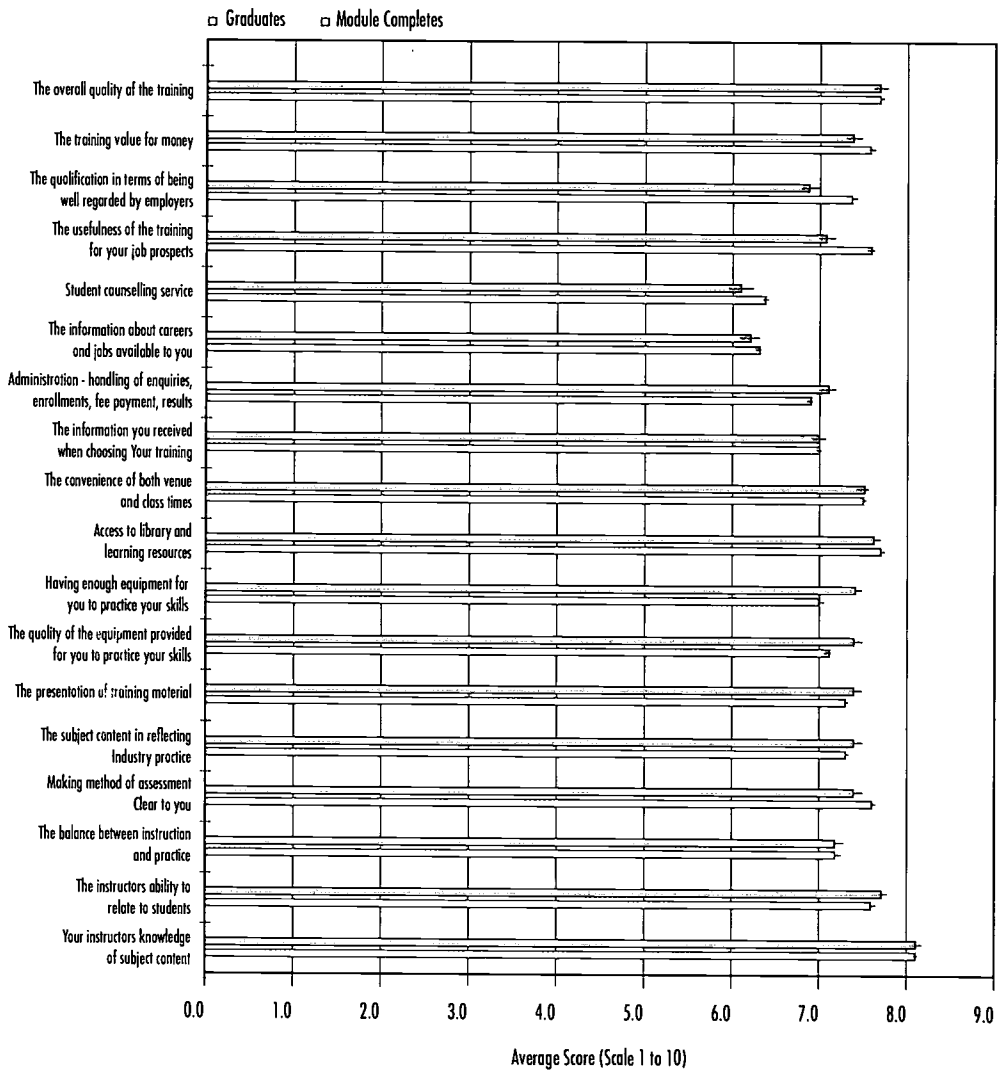
The picture was similar for module completers, with around 91% of tradespersons and 90% of managers being full-time employed. The occupation group with the highest proportion in part-time employment was elementary clerical and sales (62%), followed by advanced clerical, sales and service workers (41%).

EXPERIENCES WITH VET COURSE

Graduates and module completers rated the overall quality of courses highly.

Figure C4.5 shows how graduates and module completers rated their course in terms of teaching, course content, resources, administration and support services, as well as the overall quality of the course.

Figure C4.5: Views of TAFE courses by graduates and module completers: by aspect of course, Australia, 1999 (mean score on scale of 1-10)



Overall quality of the course received a mean score of 7.7 on a scale of one to ten, with 62% of graduates and module completers rating overall quality 8 or above. Both sets of students rated their instructors' knowledge of course content the highest, with a mean score of 8.1. This aspect was also ranked the most important aspect of service by graduates and module completers (29% for both). The lowest rating item by module completers was student counselling services (6.1) while for graduates it was the availability of information about careers and jobs (6.3).

REASONS FOR MODULE COMPLETERS NOT CONTINUING STUDY

For the 1999 survey, a module completer was defined as a student who successfully completed at least one module and left the TAFE system and who was not a graduate. Module completers were asked their reasons for not continuing or undertaking more TAFE training in 1999, to gain some understanding of those students who leave the system without completing a qualification.

Module completers were initially allowed to nominate multiple responses. The most common reasons given were employment- or training-related:

- 24% reported that they had gained what they wanted from the training they had completed
- 16% reported that they changed jobs or started a new job
- 16% stated they had gained the skills they needed for their job.

Personal reasons were also important, with around 14% reporting too many pressures on their time, and 10% indicating family reasons prevented them from continuing.

Respondents were also asked to indicate their main reason for not continuing, or doing more TAFE training in 1999. Just over one in three respondents indicated employment-related reasons, or that they had gained what they wanted from the training (36%), while 24% indicated personal reasons. 17% indicated training-related issues as the main reason for not continuing, or doing more TAFE training in 1999.

Table C4.10: Module completers' reasons for not undertaking more TAFE training: by main reason, Australia, 1999 (per cent)

Main reason	
Employment/gained what I wanted from training	36
I had gained what I wanted from the training	13
Changed jobs or started a new job	9
Training related reasons	17
The training no longer related to my plans	4
The training timetable was not flexible enough for me to attend class times	4
The training was not what I expected	3
Personal reasons	24
Family reasons prevented me from continuing	5
Too many pressures on my time	7
Other reasons	8
Not stated	15
Total	100
Number of respondents	4,152

STUDENT PROFILE

The following table (C4.11) highlights some of the differences between the TAFE graduates and module completers in the 1999 survey.

Table C4.11: Profile of graduates and module completers: by general characteristics, Australia, 1999 (per cent)

General characteristics	Graduates	Module completers	Australia
Females	56	48	50
15-24 years of age	39	30	14
25-39 years of age	32	32	23
Aged 40 and over	26	34	42
Indigenous Australians (ATSI)	2	3	2
Non-English speaking background	31	25	N/A
Reported disability	4	8	19
Capital city as home address	62	51	64

Source: ABS publications, *Labour Force Australia*, catalogue 6203.0, May 1999; *Australian Demographic Statistics*, catalogue 3101.0, December 1998, 1988 *Survey of Disability, Ageing and Carers*, catalogue 4430.0.

VET participation, outputs & outcomes achieved by client groups

In 1999, the Australian vocational education and training system at all levels continued to encourage equitable participation and outcomes for all Australians.

Key Performance Measure 5 reports on groups more likely to be under-represented, or to report poorer outcomes. In 1999, student equity groups were Aboriginal and Torres Strait Islander people, people with a disability, people from non-English speaking backgrounds, people living in rural and remote areas, and women.

KPM 5 measures outputs and participation for these groups, as per KPM 1 (skills produced annually within the domain of formally-recognised vocational education and training) and employment outcomes and prospects as per KPM 4 (student employment outcomes and prospects before and after participation in vocational education and training). In other words, in KPM 5 these other measures are used to provide an analysis of system performance for each identified student equity group[1].

ACHIEVEMENT AND PARTICIPATION

Women

Nationally, the load pass rate for female students is essentially the same as that for males (Table C5.1). While females appear to do relatively better then males in some jurisdictions and marginally worse in others, these differences are not considered statistically significant.

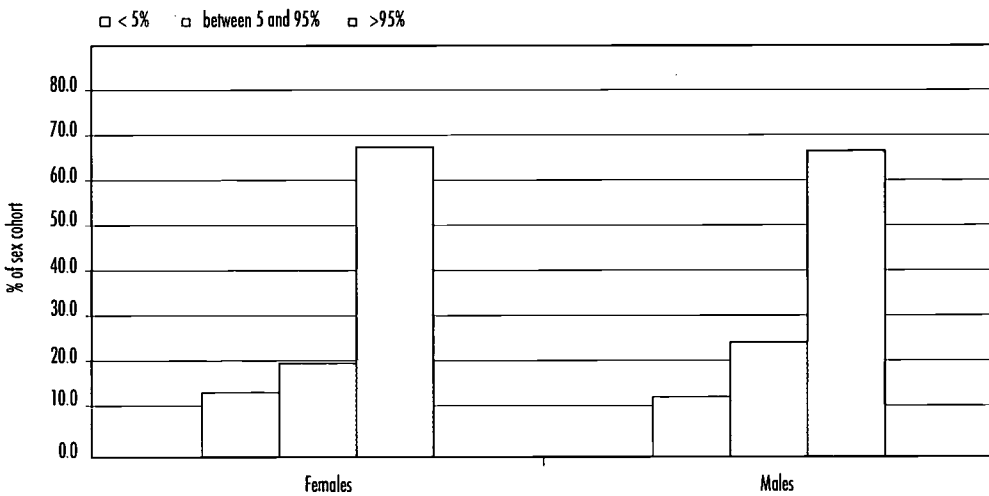
Table C5.1: Load pass rate by sex and State/Territory: all students, 1999 (per cent)

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
Females	72.2	75.4	75.8	86.8	72.9	84.8	67.9	81.9	75.1
Males	71.6	72.2	75.2	84.8	73.6	82.0	71.1	77.8	73.9
All persons	71.9	73.6	75.5	85.7	73.3	83.4	69.5	79.8	74.5

[1] The accuracy of data on specific groups relies on students self-identifying on their enrolment form as a member of a particular equity group (or groups). Substantial numbers of people chose not to answer questions on their enrolment form which might identify a non-English.speaking background, indigenous status or disability. Therefore, the information for these groups should be treated as indicative rather than definite.

When load completion rates for individual students are considered, it is found that women are slightly more likely to successfully complete all or none of the program undertaken (Figure C5.1).

Figure C5.1: Successful completions for individual students in units of competency and modules: by sex 1999 (per cent)



Note: the student completion rate calculation includes both modules passed and modules with satisfactory completion of class hours as successful completions.

Nationally, men comprise a slightly higher percentage of students than women (Table C5.2). The proportions are roughly equal in all States and Territories, although the reverse of the national pattern is found in some jurisdictions. This fact should be considered within the context of the different levels and areas of participation reported later, as well as gender differences in participation in other education sectors.

As in previous years, men were more strongly represented during 1999 in engineering and surveying, whereas women were more likely to enrol in business, administration and economics. Women were also more likely to enrol in technical and further education multi-field education (basic education/ literacy/numeracy) than were men.

Women were more likely than men to enrol in non-award courses.

Women were more likely than men to enrol in non-award courses. The range of occupations and industries for which women do vocational education and training is relatively narrow. Female apprentices and trainees were mainly to be found in a small number of occupations and industries. While women were well-represented in many levels of qualifications, they remained poorly-represented in trade certificate courses.

Table C5.2: Vocational education and training participation rates: by sex and State/Territory, 1999 (per cent)

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
Females (aged 15 to 64)	11.4	12.6	10.7	11.2	8.8	9.0	12.8	7.7	11.2
Males (aged 15 to 64)	10.6	14.4	11.6	11.3	9.6	9.7	12.5	8.3	11.6
All persons (aged 15 - 64)	11.0	13.5	11.2	11.4	9.2	9.4	12.7	8.0	11.4
All persons (all ages)	8.0	9.9	7.8	7.9	6.6	6.4	9.5	5.8	8.2

Source: Derived using National Centre for Vocational Education Research data and Australian Bureau of Statistics 1998 June Quarter Estimated Resident Population data.

People from rural and remote areas

Nationally, people from rural regions had slightly higher load pass rates than students as a whole, while those from remote regions had a load pass rate 2.7% lower than the national rate (Table C5.3).

Table C5.3: Load pass rate by region: by State/Territory, all ages, 1999 (per cent)

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
Capital city	71.2	72.1	73.8	84.0	73.5	84.2	69.6	79.7	73.4
Other metropolitan	73.9	74.6	73.7	+	+	+	+	+	74.0
Rural	72.2	77.4	78.0	90.0	73.9	82.7	74.0	+	76.8
Remote	67.8	78.9	76.0	85.2	67.2	82.9	67.9	+	71.8
All persons	71.9	73.6	75.5	85.7	73.3	83.4	69.5	79.8	74.5

+ Numbers too small to calculate a meaningful rate.

56.0% of all vocational education and training students live in a capital city and 7.0% of all students live in other metropolitan areas (that is, other cities with more than 100,000 people). Rural areas account for 30.2% of students while 3.7% live in remote locations.[1]

The participation rate for people living in rural and remote areas is slightly higher than the whole population.

The national participation rate for people living in rural and remote regions is slightly higher than for the whole population (Table C5.4). As well, the course enrolment profile of rural and remote students was broadly comparable with the national profile of all students.

The information in Table C5.4 is based on the residential address of the student, and on the State or Territory in which the enrolment is reported. As some students are enrolled in a place different to where they live, the percentages for each jurisdiction may include students who live in a similar geographic region, but in a different State or Territory.

Student completion rates vary to some extent among the regions. In particular, students from rural areas are more likely to complete all of the modules undertaken (73.0%, compared to 66.7% for all students) and slightly less likely to complete none (10.0%, compared with 12.4% for all students). On the other hand, students from remote areas are more likely to complete none of their modules (17.2%, in contrast to 12.4% for all students). Because they comprise the major group, students from capital city and other metropolitan regions effectively determine the pattern for all students.

[1] For a definition of the geographical terms, refer to the appendix

Table C5.4: Vocational education and training participation rates: by region, all ages, 1999 (per cent)

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
VET STUDENTS									
Capital city	56.5	59.6	42.5	67.0	62.7	37.4	38.5	81.5	56.0
Other metro.	11.7	3.4	12.0	+	+	+	+	+	7.0
Rural	29.2	32.4	35.6	24.9	20.3	57.7	6.2	+	30.2
Remote	0.9	0.8	6.4	3.1	15.0	1.2	53.9	+	3.7
All persons	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
PARTICIPATION									
Capital city	7.1	8.2	7.2	7.2	5.7	5.7	7.9	4.7	7.2
Other metro.	7.6	10.1	6.8	+	+	+	+	+	7.6
Rural	9.9	13.6	7.8	8.1	7.9	6.5	12.2	+	9.8
Remote	10.1	31.9	10.3	11.0	10.4	6.4	10.4	+	10.8
Total Participation rate	8.0	9.9	7.8	7.9	6.6	6.4	9.5	5.8	8.2

+ Numbers too small to calculate a meaningful rate.

Source: Derived using National Centre for Vocational Education Research data for clients and Australian Bureau of Statistics population data.

Aboriginal and Torres Strait Islander People

Pass and completion rates for indigenous Australians were substantially lower than those for all students.

During the last decade, there have been significant advances in the provision of vocational education and training programs to indigenous Australians. However, load pass rates for indigenous students were substantially below the rates achieved by the whole student population. (Table C5.5).

Table C5.5: Load pass rate by indigenous students: by State/Territory, all ages, 1999 (per cent)

Client group	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
Reported as indigenous	55.1	57.6	58.4	69.8	54.4	71.6	63.5	65.8	58.3
Reported as non-indigenous	72.5	73.8	76.1	86.8	75.7	83.8	72.9	80.0	75.1
Client group not reported	72.9	74.1	82.9	84.6	72.8	85.8	74.0	80.2	75.5
All persons	71.9	73.6	75.5	85.7	73.3	83.4	69.5	79.8	74.5

Nationally, and in most States and Territories, the major contributors to the below-average load pass rates for indigenous Australians are above- average withdrawal and fail rates. For example, the load withdrawn rate for indigenous students (20.6%) is 8.0% higher than for non-indigenous students, and the load fail rate (21.1%) is 8.8% higher.

These patterns are also reflected in student completion rate patterns. 45.2% of indigenous students complete all their modules, in contrast to 65.6% for non-indigenous students; while the proportion who complete none of their modules is 21.7%, compared to 12.4% for non-indigenous students.

A major challenge for the sector must therefore be reducing withdrawal rates and achieving greater time-on-task, a widely recognised and important determinant of success in education and in training, to increase pass rates and to improve completions.

An estimated 3.8% of vocational education and training students were indigenous Australians.

Despite below-average load pass rates, the participation picture for indigenous Australians in vocational education and training is a positive one (Table C5.6). In 1999, 3.1% of vocational education and training students identified themselves as being an Aboriginal or Torres Strait Islander. This figure is higher than the corresponding figure of 2.0% for the entire Australian population. Given that 17.3% of vocational education and training students did not indicate their background, it would be statistically expected than 3.8% of students are indigenous Australians.

Table C5.6: Vocational education and training participation by indigenous: by State/Territory, all ages, 1999 (per cent)

Client group	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
Students reported as indigenous	2.8	0.8	4.2	2.6	6.4	2.7	37.8	1.3	3.1
... adjusted for not reported	3.3	1.0	4.6	3.4	10.4	3.1	40.0	1.4	3.8
Reported as non-indigenous	82.7	79.3	86.9	74.7	54.7	84.5	56.6	97.6	79.6
Client group not reported	14.5	19.9	8.9	22.7	38.9	12.8	5.6	1.1	17.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Indigenous peoples as proportion of total population	1.7	0.5	2.9	1.4	3.0	3.0	24.4	1.0	2.0

Source: Derived using National Centre for Vocational Education Research data for clients and Australian Bureau of Statistics 1996 Census data

Indigenous Australians tend to do lower level and shorter courses.

Although indigenous Australians are well-represented in vocational education and training, they tend to do lower-level and shorter courses when compared with the whole student population. This is an important indicator of access and equity for indigenous Australians. In 1999, 50.9% of indigenous Australians were enrolled in AQF Certificate level I and II courses. The proportion for non-indigenous students was 25.9%. At higher AQF levels, 14.7% of indigenous Australians were enrolled in Diploma and AQF Certificate level III programs. The proportion for non-indigenous students was 25.5%.

People from Non-English speaking backgrounds

An estimated 15.0% of all vocational education and training students spoke a language other than English at home.

Many of the programs offered by the vocational education and training sector are designed specifically to meet the needs of students from non-English speaking backgrounds, including in some States and Territories Adult Migrant Education Programs funded by the Department of Immigration and Multicultural Affairs.

Data is kept for two types of people from non-English-speaking backgrounds: those students who reported speaking a language other than English at home, and those students who indicated that they were born in a country where the English language is not predominant. Of those who speak a language other than English at home, there are two further subdivisions: students born outside Australia in countries where English is not the main language, and students born in Australia into families where English is not generally used. These families include immigrants to Australia, and Aboriginal and Torres Strait Islander families who speak indigenous languages.

In general, students from non-English speaking backgrounds had lower load pass rates than students who reported speaking only English at home (Tables C5.7 and C5.8). For students who speak a language other than English at home, the load pass rate nationally is 7.0% below that of students who speak English at home. For students born in countries where English is not the main language, the pattern is very similar, at 6.3% below the rate for students born in a mainly English-speaking country.

The below-average load pass rate for students from non-English speaking backgrounds is observed in all States and Territories, except Tasmania.

Table C5.7: Load pass rate by language spoken at home: by State/Territory, all ages, 1999 (per cent)

Language spoken at home	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
Language other than English	69.9	68.1	59.9	80.1	62.3	96.6	59.6	73.9	69.0
English	73.8	75.2	76.1	86.9	74.9	81.0	72.6	81.0	76.1
Not reported	64.8	73.8	83.3	84.0	73.0	84.0	76.7	82.6	73.7
All persons	71.9	73.6	75.5	85.7	73.3	83.4	69.5	79.8	74.5

Table C5.8: Load pass rate by country of birth : by State/Territory, all ages, 1999 (per cent)

Country of birth	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
Non-English-speaking country	70.2	68.8	62.4	81.3	64.3	81.1	59.6	75.4	69.2
Mainly English-speaking country	72.2	75.2	76.2	86.6	74.6	83.5	70.1	81.3	75.4
Not reported	74.0	73.2	85.5	84.3	73.2	83.6	75.6	76.5	76.0
All persons	71.9	73.6	75.5	85.7	73.3	83.4	69.5	79.8	74.5

The below-average pass rate is also reflected in the module completion rates for individual students, with 54.7% of students who speak a language other than English at home successfully completing all their modules. This is in contrast to 68.6% for students who speak English at home. However, this difference is not observed for students born in countries where English is not the main language, suggesting that language spoken is more important as a determinant of success than country of birth.

Students of non-English-speaking background had lower pass and completion rates than all students.

In 1999, 11.9% of vocational education and training students nationally reported that they spoke a language other than English at home (Table C5.9). Given that over 20% of students did not answer the question, this percentage is a minimum. Factoring the non-reporting rate into the reported figure produces an estimate of 15.0% of students who speak a language other than English at home.

At the 1996 census, 15.1% of all Australians spoke a language other than English at home, so the rate for vocational education and training students is comparable with that of the general population. The situation is similar among the States and Territories, even though the proportions for the general population vary considerably (from 3.4% in Tasmania to 23.3% in the Northern Territory).

Over a third of students who reported speaking a language other than English at home were enrolled in courses in the 'vocational education and training multi-field education' field of study, which includes many general, preparatory and language courses. As expected, this proportion is higher than for other students.

Table C5.9: Vocational education and training students by language spoken at home: by State/Territory, all ages, 1999 (per cent)

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
VET STUDENTS									
Speaking a language other than English at home	17.3	11.8	5.6	8.8	6.2	7.0	24.3	13.8	11.9
Speaking only English at home	66.1	66.4	80.2	65.7	44.0	84.3	64.0	84.1	67.5
Language spoken at home not reported	16.6	21.8	14.2	25.5	49.8	8.7	11.7	2.0	20.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
AUSTRALIAN POPULATION									
Speaking a language other than English at home	18.2	20.2	6.9	12.3	11.6	3.4	23.3	13.9	15.1
Speaking only English at home	81.8	79.8	93.1	87.7	88.4	96.6	76.7	86.1	84.9

Source: Derived using National Centre for Vocational Education Research data for clients and Australian Bureau of Statistics 1996 Census data

Table C5.10 shows the English-speaking nature of each student's country of birth. An estimate of the actual percentage of students born in a non-English speaking country (15.0%) was derived by limiting data to those clients who reported their country of birth.

Table C5.10: Vocational education and training students by country of birth: by State/Territory, all ages, 1999 (per cent)

Country of birth	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
VET STUDENTS									
Non-English-speaking country	16.2	13.0	7.9	9.2	7.0	3.5	7.2	14.2	12.1
Main English-speaking country	70.5	65.4	80.4	67.2	43.2	88.1	83.1	74.8	69.0
Not reported	13.3	21.6	11.7	23.6	49.8	8.3	9.7	11.0	18.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
AUSTRALIAN POPULATION									
Non-English-speaking country	15.8	17.1	7.3	10.6	11.8	3.9	8.1	13.8	13.3
Main English-speaking country	84.2	82.9	92.7	89.4	88.2	96.1	91.9	86.2	86.7

Source: Derived using National Centre for Vocational Education Research data for clients and Australian Bureau of Statistics 1996 Census data

As 13.3% of the Australian population were born in a non-English-speaking country, indications are that this group is doing vocational education and training in numbers at least equal to their representation in the general population. However, notwithstanding their total numbers, students born in a non-English speaking country are more likely to do lower skill level preparatory courses and less likely to do vocationally-specific or high-skill courses.

People with a disability

Students who reported having a disability had lower pass and completion rates than students who reported not having a disability.

Students who reported having a disability had lower load pass than students who reported not having a disability (Table C5.11).

Although only slightly more likely to complete none of their module hours (14.5%, compared with 12.4% of students without a disability), students with a disability were less likely to complete all the module hours they undertook (57.1%, in contrast to 66.0% for students without a reported disability and 73.3% for students for whom disability information is not reported). This is the major source of the below-average load pass rate for students with a disability.

Table C5.11: Load pass rate by disability: by reported disability and State/Territory, all ages, 1999 (per cent)

Student group	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
Students reported as having a disability	66.7	67.3	66.9	80.7	66.2	71.0	64.3	74.5	67.7
Students reported as not having a disability	72.1	74.1	75.8	86.3	74.2	84.0	69.5	79.8	74.8
Students with disability not reported	73.1	70.3	76.2	84.2	72.5	79.5	72.5	85.6	74.9
All students	71.9	73.6	75.5	85.7	73.3	83.4	69.5	79.8	74.5

In 1999, 3.9% (Table C5.12) of students reported having a disability. Factoring the non-reporting rate into the reported disability rate produces an estimate of students with a disability of 4.6% of the whole student population, the same (to one decimal place) as in 1998.

An estimated 4.6% of all vocational education and training students had a disability.

As for other student equity groups, there was a moderate non-response rate (in the case of disability, 16.1%). This represents an improvement in the non-response rate for this group over 1998.

Because of differences in the definition of disability by the Australian Bureau of Statistics and for the Australian Vocational Education and Training Management Information Statistical Standard, the percentages of students, and the national population, with a disability cannot be compared meaningfully. Moreover, the ABS figures include people of all ages, whereas the great majority of students doing vocational education and training are 15-64 years old.

Additionally, the Australian Vocational Education and Training Management Information Statistical Standard classifies a disability to be both significant and permanent. The Australian Bureau of Statistics defines a disability more broadly to encompass restrictions or impairments which had lasted, or were likely to last, for a period of six months or more. To improve the comparability of data, the two definitions will be aligned where possible in the future.

Table C5.12: Vocational education and training participation by disability: by reported disability and State/Territory, all ages, 1999, (per cent)

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
Students reported as having a disability	4.8	3.6	3.6	3.5	2.6	3.7	2.7	4.8	3.9
Students reported as not having a disability	79.9	89.7	78.9	68.7	55.3	80.6	86.6	87.2	80.0
Students with client group not reported	15.3	6.7	17.5	27.8	42.1	15.7	10.7	8.0	16.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Persons with a disability as proportion of total population	19.3	18.0	19.9	22.4	19.5	22.3	13.3	17.2	19.3
Persons with a disability (aged 15-64) as proportion of total population aged 15-64*	14.3	13.1	15.1	17.3	14.3	17.1	10.4	12.0	14.4

Source: Derived using National Centre for Vocational Education Research data for clients and Australian Bureau of Statistics disability, ageing and carers, 1998, ABS cat. no. 4430.0

* Includes specific restrictions: core activity (ie communication, mobility and self care) restrictions as well as schooling or employment restrictions.

The proportion of vocational education and training students with a disability (estimated at 3.9%) is very low compared with that of the general population (19.3%) and low compared with the proportion of 15 to 64 year old persons reported as having a specific restriction (14.4%).

To some extent this is explained by the different age profiles of the populations as older people are more likely to have a disability than younger people. One third of VET students who reported a disability were aged 40 or more, while of those without a disability only one quarter were aged 40 or over.

People who report having a disability were more likely to do lower-skill level courses than those who do not report having a disability. 32.7% of students who reported having a disability were enrolled in AQF Certificate level I and II courses or their equivalents, compared with 26.6% of students who reported not having a disability. Students reporting a disability also tended to be over-represented in programs where there is low or declining labour market demand. Together, these factors are likely to result in poor employment prospects after students graduate.

People with a disability were more than twice as likely than those without a disability to have done vocational education and training multi-field education programs (34.1%, compared to 15.4%). These programs are more generic or preparatory in nature and mostly include generic rather than specific occupational skills.

EMPLOYMENT OUTCOMES FOR STUDENT EQUITY GROUPS[1]

Graduates in an equity group were less likely to be employed than TAFE graduates overall.

Table C5.13 shows employment outcomes (as at May 1999) for graduates in equity groups who completed their course in 1998. It also shows the percentages enrolled in further training. The table shows that graduates in an equity group were considerably less likely to be employed than TAFE graduates overall. The lower employment rate for Aboriginal and Torres Strait Islander graduates was a reflection of a high proportion of Indigenous students who:

- did training for non-vocational reasons (29%), compared to the population as a whole (20%)
- did courses which did not lead to immediate employment (basic education and employment skills type courses, 13%) compared to 3% for all graduates.

Table C5.13: Equity group employment outcomes for TAFE institute graduates, Australia, 1999: by client equity group and labour force status (per cent)

Client equity group	Employed	Un-employed	Not in labour force	Total (a)	Working or in further study	As a proportion of graduate respondents	Number of graduate respondents
Indigenous Australians	48	24	26	100	77	2	1,110
Non-indigenous Australians	73	14	13	100	88	98	61,719
Non-English-speaking background	63	17	19	100	85	31	19,507
English-speaking background	77	11	11	100	89	69	43,691
Graduates reported a disability	46	22	30	100	75	4	2,688
No disability reported	74	13	13	100	88	95	60,029
Rural	73	14	12	100	87	27	17,100
Remote	81	9	10	100	89	2	1150
Women	68	14	17	100	85	56	35,511
Men	79	11	10	100	91	44	27,687
All graduates	73	13	13	100	88		63,198

(a) Components may not add to total due to non-response to some survey questions or rounding.

[1] Graduates' and module completers' perceptions of whether their course helped them achieve their main reason for doing the course uses data from the *1999 Student Outcomes Survey*. The scope of this survey relates only to students from publicly-owned TAFE institutions.

Module completers in an equity group were less likely to be employed than TAFE module completers overall.

Module completers in equity groups showed a pattern similar to graduates in that, after completing their course, they were less likely to be employed than TAFE module completers overall. This is shown in Table C5.14. Although the employment rate for Aboriginal and Torres Strait Islander module completers (57%) is lower than module completers overall (68%), the gap is much smaller than that for graduates (48% and 73% respectively, see Table C5.13).

Table C5.14 Equity group employment outcomes for TAFE institute module completers: by client equity group and labour force status, Australia, 1999 (per cent)

Client equity group	Employed	Un-employed	Not in labour force	Total (a)	As a proportion of module completer respondents	Number of module completer respondents
Indigenous Australians	57	20	21	100	3	123
Non-indigenous Australians	68	13	17	100	96	3,992
Non-English-speaking background	62	17	19	100	25	916
English-speaking background	69	12	16	100	75	3,236
Module completers reported a disability	34	18	44	100	8	258
No disability reported	71	13	14	100	90	3,834
Rural	68	11	18	100	37	1430
Remote	73	10	16	100	4	338
Females	63	13	22	100	48	2,228
Males	72	13	12	100	52	1891
All module completers	68	13	17	100		4,152

(a) Components may not add to total due to non-response to some survey questions or rounding.

STUDENTS' ACHIEVEMENT OF THEIR REASONS FOR TRAINING

Compared to graduates, module completers were, overall, more likely to feel the course only partly helped to achieve their main reason for doing it.

Table C5.15 and Table C5.16 show equity groups for graduates and module completers, respectively, and their opinions on how much their TAFE course helped them achieve their main reasons for doing the course. The percentages for graduates in equity groups are broadly in line with all graduates, and, similarly, percentages for module completers are generally in line with all module completers. Compared

to graduates, module completers were, overall, more likely to feel the course only partly helped to achieve their main reason for doing it.

Both graduates and module completers with a disability (11% and 18% respectively) were more likely to feel that their course did not help to achieve their main reason for doing it.

Of graduates, those reporting a disability (55%) and those from a non-English-speaking background (58%) were less inclined to feel that their course helped them achieve their main reasons for doing it. Similarly, module completers in the same two equity groups were less inclined to feel the course helped to achieve their main reason (38% and 43% respectively).

Table C5.15: Whether course helped to achieve main reason, TAFE institute graduates: by client equity group and achievement level, Australia, 1999 (per cent)

Client equity group	Course helped to achieve main reason	Course partly helped to achieve main reason	Course did not help to achieve main reason	Don't Know as Yet	Total (a)	As a proportion of graduate respondents	Number of graduate respondents
Indigenous Australians	66	12	8	13	100	2	1110
Non-indigenous Australians	63	16	8	12	100	98	61,719
Non-English-speaking background	58	18	9	14	100	31	19,507
English-speaking background	66	15	8	11	100	69	43,691
Graduates reporting a disability	55	17	11	16	100	4	2,688
No disability reported	64	16	8	11	100	95	60,029
Rural	65	15	8	11	100	27	17,100
Remote	70	14	5	9	100	2	1,150
Female	61	17	9	12	100	56	35,511
Male	66	14	7	11	100	44	27,687
All graduates	63	16	8	12	100		63,198

(a) Components may not add to total due to non-response to some survey questions or rounding.

Module completers in an equity group were less likely to feel that their course had not helped them achieve their main reason for undertaking it overall.

Table C5.16: Whether course helped to achieve main reason, TAFE institute module completers: by client equity group and achievement level, Australia 1999 (per cent)

Client equity group	Course helped to achieve main reason	Course partly helped to achieve main reason	Course did not help to achieve main reason	Don't Know as Yet	Total (a)	As a proportion of module completer respondents	Number of module completer respondents
Indigenous Australians	50	26	12	10	100	3	123
Non-indigenous Australians	51	21	15	11	100	96	3,992
Non-English-speaking background	43	25	13	16	100	25	916
English-speaking background	53	19	15	9	100	75	3,236
Module completers reporting a disability	38	29	18	12	100	8	258
No disability reported	52	20	14	11	100	90	3,834
Rural	56	16	14	9	100	37	1430
Remote	56	24	9	9	100	4	338
Female	49	22	15	12	100	48	2,228
Male	52	20	14	10	100	52	1891
All module completers	51	21	15	11	100		4,152

(a) Components may not add to total due to non-response to some survey questions or rounding.

Public expenditure per publicly-funded output
Public expenditure per total recognised output

The performance measures in this chapter report the efficiency of producing skill outputs through public expenditure on vocational education and training in Australia. The measures are used to assess the public cost of transforming inputs (in this instance government expenditure) into recognised skill outputs. Whilst the vocational education and training system aims to optimise its efficiency in developing skills in students, it also seeks to achieve value for money, and to ensure that public accountability is demonstrated in the expenditure of government funds.

The Australian National Training Authority (ANTA) Agreement, which applies from 1998 to 2000, requires States and Territories to demonstrate improved efficiency in the provision of publicly funded vocational education and training.

Over the period of the agreement, the Commonwealth Government has agreed to maintain its level of funding for vocational education and training in real terms. State and Territory Governments have agreed to identify efficiencies, to assist in releasing funds for growth and system enhancements.

Under this 'growth derived from efficiency' approach, States and Territories identify ways to increase efficiency that are specific to their individual circumstances and histories of efficiency improvement. Many strategies have been identified in the States and Territories 'growth derived from efficiency' strategic plans and implementing them will bring improvements in both the short and longer term.

Reports on State and Territory plans for growth derived from efficiencies in 2000 can be found in the ANTA report *Directions and Resource Allocations for 2000.*

This chapter reports the efficiency performance of each State and Territory in 1999, and provides the basis for assessing actual performance in 1999 against the agreed plans.

KEY MEASURES OF EFFICIENCY

The two nationally-agreed measures of efficiency are described below.

KPM 6: Public expenditure per publicly funded output

This measure determines the efficiency of producing publicly funded vocational education and training skill outputs using government funds provided under the ANTA Agreement.

This measure requires a single output value that represents the aggregation of all units of competency and module outputs reported along a single measurement scale. This process of standardisation recognises that the amount of skill output associated with a successful training outcome is variable, because each unit of competency and module involves different levels of skill or intensity of training.

Research into an implementation approach for the standardised output measure continued in 1999. In the interim, ministers for vocational education and training have agreed that the nominal number of training hours associated with each unit of competency and module will be used, until the standardised output measure is in place.

Accordingly, the data used to assess performance against this measure currently reports the unit cost per nominal hour of training activity for publicly funded vocational education and training.

KPM 7: Public expenditure per total recognised output

This measure is broader than KPM 6, in that it also includes skill outputs funded from other sources. In doing so, the measure captures the extent to which individual and employer investment in training is contributing to recognised skill outputs (a contribution that can be leveraged through public funding).

A survey was piloted in 1999 to test the feasibility of collecting information on total recognised skill output, to enable the reporting of data against this measure. The results were not encouraging: response rates were poor, and concerns were raised about the commercial sensitivity of data. The potential for obtaining relevant information through the up-coming ABS *Survey of Education and Training* is currently being examined.

Accordingly, this measure has not yet been implemented and will not be discussed further in this report.

OTHER EFFICIENCY MEASURES

Two other established measures, which provide another perspective on the unit cost of producing a successful output, are also reported in 1999. These measures are:

- public expenditure per student load completion (publicly funded)
- public expenditure per student load completion (all funded programs).

The outputs captured by these measures are a subset of the total number of publicly funded annual hours curriculum. They have been discounted to include only hours associated with a successful outcome, in both assessable and non-assessable modules and units of competency.

It is anticipated that the reporting of these supplementary measures will cease once the key performance measures are fully implemented.

THE SCOPE OF EFFICIENCY CALCULATIONS

The efficiency measures in this chapter include the recurrent expenditure (and resultant outputs) on vocational education and training by Commonwealth, State and Territory Governments under the ANTA Agreement. This includes all costs to Governments for the provision of vocational education and training, including the direct delivery and support of training (which constitutes the single largest expense), the regulation and quality assurance of training, and the facilitation of training arrangements in industry.

FACTORS INFLUENCING EFFICIENCY

The factors that have the greatest impact on efficiency include:

- training-related factors (class sizes, teaching salaries, teaching hours per full-time equivalent staff member and the differences in the length of training programs of similar types)
- differences between States and Territories (including sociodemographic composition, administrative scale, dispersion and scale of service delivery)
- vocational education and training policies and practices (including, for example, the level of fees and charges paid by students).

Training-related policy and practices are under continual review. With regard to differences between States and Territories, the Commonwealth Grants Commission analyses the factors that affect the cost of providing services in each jurisdiction, and estimates the resources needed in each jurisdiction to provide a standard level of service at an average level of efficiency.

ANTA uses the Commission's findings when analysing differences in efficiency (or unit costs) across jurisdictions. However, as agreed by the majority of States and Territories, the efficiency measures in this report are not adjusted to account for the commission's findings. An outline of the Commonwealth Grants Commission's most recent findings appears in Part D.

ADJUSTMENTS WHEN DETERMINING EFFICIENCY

Invalid enrolments

Enrolments in vocational education and training are confirmed when evidence of participation by the student in the module or unit of competence can be confirmed.

Accordingly, the efficiency calculations in this report are adjusted to include only training activity that has been confirmed as valid through the activity audit reports commissioned by ANTA and undertaken by the NCVER.

Course mix differences

The efficiency calculations are weighted to take account of the different proportions of relatively more-expensive, and less-expensive, training programs occurring in jurisdictions. A weight of more than one indicates that the State or Territory is offering relatively more-expensive programs, compared with the national profile.

The methodology used to determine the relative costs of training in different training areas is in need of review. ANTA will be working with States and Territories to improve the methodology for future reporting.

Table C7.1 shows each State and Territory's course mix weighting, which takes account of their planned 1999 activity.

Table C7.1: Course mix weights: by State/Territory, 1999

NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
0.979	1.014	0.992	1.006	1.046	1.037	1.005	0.976	1.000

Source: Derived by ANTA using 1999 estimated activity from 2000 State and Territory annual vocational education and training plans and unit cost weightings developed by the Unit Cost Working Party

EFFICIENCY PERFORMANCE IN 1999

Public expenditure calculations

When measuring efficiency, public expenditure on vocational education and training is an estimate of the combined Commonwealth, State and Territory Government recurrent expenditure provided under the ANTA Agreement.

Expenditure figures, prepared on an accrual accounting basis since 1997, have been largely derived from information prepared by States and Territories under the AVETMIS Standard for VET Financial Data. The financial information used to estimate government recurrent expenditure has been audited since 1998 under arrangements established in cooperation with the States and Territories.

Final 1998 audited expenditure figures were not available from some jurisdictions until after last year's report was finalised. Efficiency performance information has therefore been updated in this year's report to include final audited figures for 1998. Expenditure figures in this report for 1999 have been audited by all jurisdictions.

The expenditure figures do not currently include the user cost of capital. ANTA will be working with States and Territories to develop a nationally-consistent approach to the treatment of this cost so that it is recognised and included in future years.

Details about the formula for estimating public expenditure on vocational education and training are provided in the appendix.

Public expenditure per publicly-funded output

The national accrual unit cost of vocational education and training activity funded under the ANTA Agreement in 1999 was $12.6 per annual curriculum hour. This represents an efficiency improvement of 4.5% over 1998 levels. The cumulative improvement in efficiency since 1997 is 9.9% nationally.

Table C7.2 shows the level of efficiency achieved in all States and Territories in 1997, 1998 and 1999, and indicates the annual percentage change in efficiency performance as well as the change observed over the period. A negative efficiency improvement value indicates improved efficiency. The detailed information used to determine these figures is provided in the appendix.

Table C7.2: Public expenditure per publicly funded output: by State/Territory, 1997, 1998 and 1999 ($1999, accrual)

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
1999	14.5	9.3	13.4	11.8	13.0	15.8	19.6	15.1	12.6
1998 (in '99 prices)	15.3	10.4	12.3	13.6	13.4	16.6	27.7	17.1	13.2
1997 (in '99 prices)	15.0	10.5	14.9	15.6	15.1	19.0	28.8	17.2	14.0
% annual change '98 to '99	-4.9	-10.6	+8.8	-13.4	-2.7	-4.5	-29.2	-11.6	-4.5
% annual change '97 to '98	+1.6	-0.5	-17.4	-12.8	-11.4	-12.5	-3.6	-0.6	-5.6
% change '97 to '99	-3.3	-11.0	-10.1	-24.5	-13.8	-16.4	-31.7	-12.1	-9.9

Source: Government recurrent expenditure - data prepared by States/Territories under the AVETMIS Standard for vocational education and training financial data plus supplementary information provided by ANTA. Annual curriculum hours - annual audit reports of non-financial activity prepared specifically for ANTA.

While efficiency improvement has fluctuated annually in some jurisdictions since 1997, all States and Territories have improved their level of efficiency between 1997 and 1999.

Many of the factors identified by States and Territories in their 'growth derived from efficiencies' plans have contributed to the observed efficiency improvement. The factors cited by jurisdictions that have impacted on actual performance since 1997 include:

- the expansion of contestability within the training market which has brought about price reductions and a more responsive TAFE provider sector
- a more outcomes focussed management culture that has arisen from the separation of purchaser and provider organisations
- the wider establishment of purchase/performance agreements with training providers
- improved management systems within TAFE institutes
- the better use and management of capital facilities
- the expansion of alternative delivery modes including flexible, online and in-the-workplace delivery
- improved planning, quality improvement and resource allocation models, and
- improved practices in the management of student enrolments which have further reduced the number of incidences where a student was reported as being enrolled in a course, but had not actually proceeded with their training. These incidences displace others from a training place, and reduce the efficiency of training provision.

Efficiency improvement in recent times has also depended on the pre-existing history of efficiency in each jurisdiction and the pace at which the various efficiency improvement strategies have been implemented in each jurisdiction.

Public expenditure per student load completion (Publicly funded-programs)

Table C7.3 reports the unit cost of a successful training outcome in publicly-funded programs between 1998-1999. In 1999, the national unit cost to government of producing successful vocational education and training outputs from government-funded programs was $19.7 per hour of successful module completion.

Table C7.3: Public expenditure per student load completion (publicly funded programs): by State/Territory, 1998 and 1999 ($1999, accrual)

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
1999	23.8	14.5	20.2	16.0	21.8	26.0	34.2	22.3	19.7
1998 (in '99 prices)	24.7	16.4	22.1	20.9	22.1	30.3	49.3	27.0	21.7
1997 (in '99 prices)	23.9	17.1	22.8	23.0	23.9	34.5	56.7	26.4	22.2
% annual change '98 to '99	-3.7	-11.7	-8.8	-23.4	-1.2	-14.1	-30.7	-17.4	-9.0
% annual change '97 to 98	+2.7	-4.6	-3.6	-9.6	-8.2	-12.6	-13.6	+1.6	-2.7
% change '97 to '99	-0.5	-15.2	-11.5	-30.4	-8.7	-24.5	-39.7	-15.5	-10.9

Source: Government recurrent expenditure - data prepared by States/Territories under the AVETMIS Standard for vocational education and training financial data plus supplementary information provided by ANTA. Successful student load completion hours - data prepared under the AVETMIS Standard for vocational education and training providers (01 funded activity) and annual audit reports of non-financial activity prepared specifically for ANTA.

The detailed information used to determine these figures is provided in Part D.

Public expenditure per student load completion (All funded programs)

Table C7.4 shows the publicly-funded unit cost of a successful training outcome in all training programs over the period 1997 to 1999. Nationally, the unit costs of producing a successful output from all training programs amounted to $15.3 in 1999.

This efficiency measure assesses the publicly-funded unit cost of a successful training outcome from all training programs reported within the scope of the AVETMIS Standard for vocational education and training providers. 'All training programs' include government-funded programs through the ANTA Agreement, plus government-funded, specific-purpose programs and fee-for-service programs delivered by public providers. The detailed information used to determine these figures is provided in the appendix.

Table C7.4: Public expenditure per student load completion (All funded programs): by State/Territory, 1998 and 1999 ($, accrual)

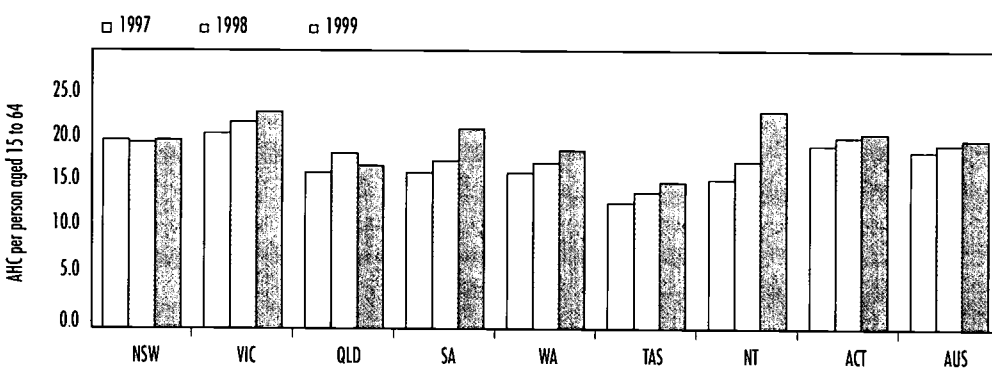
	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
1999	18.0	11.7	14.9	13.1	16.8	16.8	26.7	19.3	15.3
1998 (in '99 prices)	19.6	12.3	16.6	16.5	17.4	17.9	35.7	19.9	16.7
1997 (in '99 prices)	18.5	11.9	16.7	17.5	17.3	17.6	32.9	19.9	16.3
% annual change '98 to '99	-7.8	-5.0	-10.5	-20.4	-3.6	-6.3	-25.3	-3.4	-8.2
% annual change '97 to 98	+4.1	+2.1	-1.9	-7.2	-1.0	+0.3	+7.0	-1.2	+1.0
% change '97 to '99	-2.7	-1.6	-11.0	-25.1	-3.2	-4.6	-19.0	-3.2	-5.9

Source: Government recurrent expenditure - data prepared by States/Territories under the AVETMIS Standard for vocational education and training financial data plus supplementary information provided by ANTA. Successful student load completion hours - data prepared under the AVETMIS Standard for vocational education and training providers (all funded activity).

Training activity per head of population

The amount of training activity delivered per head of population (aged 15 to 64) provides an indication of the level of service that the publicly-funded component of the vocational education and training sector provides to the Australian population. Figure C7.1 shows that an average of 20.0 hours of publicly-funded training under the ANTA Agreement was available to each Australian aged 15 to 64 in 1999. The corresponding figure in 1998 was 19.4 hours per person.

Figure C7.1: Annual hours curriculum (AHC) per person: by State/Territory, aged 15 to 64, 1997, 1998 and 1999



Total expenditure on vocational education and training

The skills and knowledge of the Australian workforce are becoming increasingly recognised as fundamental assets that contribute markedly to our success, both individually, and as a nation. This growing realisation is occurring internationally, with many countries having also identified the critical link between the level of skills held by their citizens and their capacity to compete on the world stage.

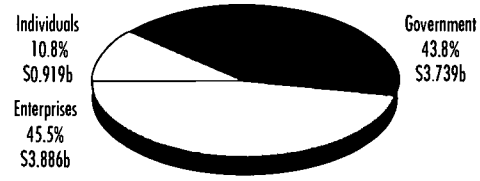
A recent study, commissioned by the Australian Industry Group, has confirmed the importance of a strong skills base for economic performance and international competitiveness. The report found that "increasing the quality, quantity and effectiveness of our national human resources will help to raise the capacity for industry to create wealth and provide the foundations for employment and higher living standards."[1] These findings present a compelling argument to support the objectives of Australia's vocational education and training system, one of which is to increase our shared investment in training.

Our collective expenditure on vocational education and training therefore enables us to assess the size of our investment in skills and knowledge formation and also to consider how we are sharing the cost of this investment.

Expenditure on Vocational Education and Training

In 1998, it was estimated that the total expenditure on vocational education and training amounted to $8.5 billion or 1.5% of GDP (Figure C8.1). The Commonwealth, State and Territory governments contributed almost half (44%) of this expenditure, mainly through the provision of recognised training under the auspices of the ANTA Agreement. It was also estimated that private business enterprises invested a similar amount on training (45%), almost half of which was expended in the provision of in-house training for their own employees. Individual investment in training accounted for the remaining expenditure with the majority of expenditure in this category being associated with fees and charges paid by students to training organisations.

Figure C8.1: Total expenditure on vocational education and training, 1998, Australia, by funding source



Whilst information relating to government expenditure on vocational education and training is updated annually, no information is currently available to provide an update on the 1998 estimate of training investment by private business enterprises.

ANTA worked with the Australian Bureau of Statistics (ABS) during 1999 to test the feasibility of repeating the 1996 Training Expenditure Survey (TES). At this stage, it appears unlikely that this survey will be repeated due to ABS concern about the burden placed on business respondents. The potential to collect data has also been diminished by the gradual decline of enterprise systems that were established to support reporting under the now defunct Training Guarantee Act.

Consequently, ANTA is currently exploring other options for obtaining this information and the 1998 estimate of total expenditure on vocational education and training ($8.5 billion) has not been updated in this report.

[1] Training to Compete - The Training Needs of Industry, Report to the Australian Industry Group by The Allen Consulting Group, 1999

annual national report

PART D: APPENDIX

1999

This section deals with technical aspects of the data and its collection, and the adjustment processes undertaken in the course of compiling this report. It also provides further detailed information that has not been included in the main body of the report.

Unless where otherwise specified in the report, the data analysed in this report relates to vocational courses only, that is those courses/qualifications with vocational intent and those module/unit of competency enrolments reported outside courses/qualifications with vocational intent. Limited information on vocational education and training in schools is collected through the national data collections (in Queensland and South Australia only), and is generally excluded from this report.

States and Territories were consulted using agreed protocols in the preparation of this report.

The main vehicle for State and Territory consultations was the State/Territory Reference Group. The Reference Group was supported by the National Centre for Vocational Education Research staff including Mr Chris Robinson, Managing Director and Ms Jessie Borthwick, General Manager.

Participants in the State/Territory Reference Group were:

- Dr Kaye Bowman, Australian National Training Authority
- Mr Peter May, Australian National Training Authority
- Ms Catherine Hope, Department of Education, Training and Youth Affairs
- Ms Annette Dallas, TAS Office of Vocational Education and Training
- Mr Paul Fennell, ACT Office of Training and Adult Education
- Mr Ken Griffiths, VIC Office of Post Compulsory, Education, Training and Employment
- Mr John Nagel/Mr Richard Osborne, SA Department of Education, Training and Employment
- Ms Kate Finlayson, NT Employment and Training Authority
- Mr Richard Strickland/Ms Gail Mitchell, WA Department of Training and Employment
- Ms Michele Bruniges/Mr Martin Graham, NSW Department of Education and Training
- Ms Merrill White, QLD Department of Employment, Training and Industrial Relations
- Dr Patricia Corrie, Productivity Commission

AUSTRALIA'S VOCATIONAL EDUCATION AND TRAINING SYSTEM

Participation by young people

Participation in education and training: by sector, aged 16-24, Australia, 1999 (Figure B7) - technical note

Figures published annually by the Australian Bureau of Statistics show a smaller number of people doing vocational education and training than is reported in the annual collection of data from vocational education and training providers. The main reason for this difference is that the Australian Bureau of Statistics figures were taken at a fixed point in time, whereas data from vocational education and training providers covers all their students in a calendar year.

Analyses by the National Centre for Vocational Education Research, using module start and finish dates to identify students doing vocational education and training at the same time as the Australian Bureau of Statistics survey date, show broad agreement between the figures produced by the Australian Bureau of Statistics and the figures from the national data collection compiled by the National Centre for Vocational Education Research, when the latter figures are treated on a point in time basis.

Young people's program levels

Table: D.1: Recoding of qualifications used in Figure B.8

1 Diplomas and above	10 Diploma 20 Associate Diploma 86 AQF - Diploma 87 AQF - Advanced Diploma 88 AQF - Bachelor's Degree 91 AQF - Graduate Diploma 92 AQF - Graduate Certificate
2 AQF Certificate IV and equivalent	31 Advanced Certificate 32 Advanced Certificate - other 85 AQF - Certificate IV
3 AQF Certificate III and equivalent	41 Certificate - trade 84 AQF - Certificate III
4 AQF Certificates I and II	82 AQF - Certificate I 83 AQF - Certificate II
5 Senior secondary	81 AQF - Senior secondary
6 Other certificates	42 Certificate - not elsewhere classified
7 Statements of attainment	60 Statement of attainment
8 Non award courses	99 Non applicable (i.e. not an award course)

Table D2: Numbers of apprentices and trainees in-training: by occupation groupings, 30 June 1997 to 1999 ('000):

Occupation Group	1997	1998	1999
Tradespersons and related workers:			
Mech & fabrication eng tradespersons	21.3	20.9	20.1
Automotive tradespersons	23.9	23.1	23.0
Electrical & electronics tradespersons	16.7	17.2	18.0
Construction tradespersons	24.6	24.5	26.8
Food tradespersons	16.7	17.2	20.4
Skilled agricricultural & horticultural workers	3.2	3.2	3.6
Hairdressers	9.5	9.5	10.0
Other tradespersons & related workers	9.0	8.7	8.9
Sub-total: trade occupations	*124.8*	*124.3*	*130.8*
Non-trade occupations:			
Managers & Administrators	2.8	2.4	2.5
Professionals	0.4	1.5	1.6
Associate Professionals	4.8	6.8	6.9
Advanced clerical & service workers	0.2	0.2	0.1
Intermediate clerical, sales & service workers	21.7	30.7	49.8
Intermediate production & transport workers	2.1	3.4	7.4
Elementary clerical, sales & service workers	6.6	9.9	34.3
Labourers & Related Workers	8.7	14.6	22.3
Sub-total: non-trade occupations	*47.2*	*69.5*	*124.8*
Total	**172.0**	**193.8**	**255.6**
Increase, 1997 to 1999			**48.6%**

Source: National Centre for Vocational Education Research apprentice and trainee data

Table D3: Numbers of apprentices and trainees in-training: by sex and age groupings, 30 June 1997 to 1999 (number)

	Ages	Number in training as at 30 June ('000) 1998	1999
Males	15-19	62.8	69.4
	20-24	56.8	59.9
	25-29	10.6	15.2
	30-64	13.5	28.7
	All Ages	143.7	173.3
Females	15-19	19.6	25.5
	20-24	14.7	20.7
	25-29	4.2	8.6
	30-64	11.6	27.3
	All Ages	50.0	82.1
Persons	15-19	82.4	94.9
	20-24	71.4	80.7
	25-29	14.8	23.8
	30-64	25.1	56.0
	All Ages	193.7	255.4

Skill outputs produced annually within the domain of formally recognised VET

PARTICIPATION IN VOCATIONAL EDUCATION AND TRAINING

Participation data source

Data is sourced from the Australian Bureau of Statistics survey, census and population data and from Finn target data supplied by the Australian National Training Authority. All other data used is sourced from the national vocational education and training data collection coordinated by the National Centre for Vocational Education Research. National Centre for Vocational Education Research data used in this chapter relate only to students who:

- were enrolled in at least one vocational program (that is those course/qualifications with vocational intent and those module/unit of competency enrolments not associated with a course/qualification with vocational intent.)
- were actively engaged in training (that is, had at least one outcome which was not recognised prior learning or credit transfer).

The data relating to participation excludes any student whose entire activity in the reporting year is:

- non vocational
- fee-for-service activity by private providers (in 1997, 1998 and 1999) or overseas-full-fee-paying activity from private providers (in 1999 only)
- relates to training that took place at an overseas training provider location
- data on vocational education and training in schools collected (not all States and Territories are currently reporting this information).

Participation data adjustments

Participation data supplied from the national vocational education and training collection have been adjusted for student enrolment no participation, on information supplied by the non-financial activity auditors at the National Centre for Vocational Education Research.

1997 to 1999 student enrolment no participation (formerly known as student enrolment no attendance (SENA)) rates have been determined from a sample drawn from the Australian Vocational Education and Training Management Information Statistical Standard client file. This allows for a more accurate estimate of the number of students participating in Government recurrent funded VET, by determining those students reported in AVETMISS where there is no confirmed class attendance or participation in any of their enrolments within the reporting year.

Table D.4 1997-1999 Adjustment factors: Student enrolment no participation (per cent)

Year	NSW	Vic	Qld	SA	WA	Tas	NT	ACT
1997	4.00	1.60	4.79	1.75	5.51	7.30	12.16	6.22
1998	2.50	4.04	1.99	0.49	0.50	3.79	2.37	3.43
1999	3.00	1.15	5.52	1.09	1.24	3.76	3.14	2.71

Source: National Centre for Vocational Education Research Audit Verification Reports

Table D.5: Vocational educotion and training participation rates 1999 (males): Males by age and Stote/Territory, 1999 (per cent)

Age	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
15	9.3	7.4	10.9	6.8	8.4	2.1	15.4	1.0	8.6
16	24.6	19.5	24.1	16.8	18.7	23.7	31.2	5.2	21.8
17	29.0	25.7	28.9	21.9	30.5	28.8	31.3	10.1	27.4
18	37.3	42.5	32.2	32.5	36.7	29.9	33.4	28.8	36.8
19	33.1	42.0	28.2	32.3	29.8	27.7	27.6	32.9	33.8
20	26.9	34.1	24.2	27.8	23.8	22.6	25.2	26.0	27.8
21	21.0	28.4	20.5	22.5	18.1	18.3	21.3	19.3	22.5
22	17.3	23.9	17.0	17.7	13.9	16.1	15.6	15.2	18.5
23	14.8	20.5	15.3	17.2	13.1	13.2	15.0	12.9	16.3
24	13.1	18.6	14.7	15.2	11.6	12.2	15.9	11.4	14.8
25-29	11.4	16.5	12.9	13.5	10.8	11.7	12.3	9.5	13.0
30-34	9.7	14.3	11.6	11.7	9.3	9.9	12.2	7.7	11.3
35-39	8.6	13.1	10.4	10.3	7.8	8.7	11.4	6.6	10.1
40-44	7.6	11.6	9.1	9.1	6.4	7.3	9.7	5.3	8.9
45-54	5.8	8.8	7.0	7.0	4.4	5.3	6.7	3.5	6.7
55-64	3.5	4.7	3.8	3.5	2.5	2.5	3.9	1.7	3.7
65+	1.3	1.3	0.8	1.0	0.6	0.5	0.7	0.2	1.1
15-64	10.6	14.4	11.6	11.3	9.6	9.7	12.5	8.3	11.6

Source: Derived using National Centre for Vocational Education Research data and Australian Bureau of Statistics 1999 June Quarter Estimated Resident Population data by sex/age

Table D.6: Vocational education and training participation rates 1999 (females): Females by age and State/Territory, 1999 (per cent)

Age	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
15	8.0	5.7	9.5	5.0	4.9	1.3	11.6	1.5	6.9
16	22.3	14.1	19.6	9.2	12.3	17.6	27.8	4.4	17.4
17	24.8	17.0	24.3	14.7	22.4	23.0	22.0	12.8	21.5
18	30.9	32.6	26.1	25.8	26.3	23.1	27.9	29.5	29.3
19	25.9	31.4	21.5	24.8	20.5	21.0	21.1	29.4	25.7
20	20.6	25.1	17.6	21.9	16.9	18.1	21.4	19.8	20.8
21	17.3	19.7	16.2	19.0	13.5	13.8	17.7	14.8	17.3
22	15.8	17.6	14.2	16.7	12.3	11.8	14.0	10.8	15.4
23	14.8	16.1	13.1	16.5	11.2	11.4	14.2	11.4	14.4
24	13.4	15.2	12.0	14.9	10.7	11.8	11.9	9.1	13.3
25-29	11.9	13.8	11.1	13.0	9.7	9.6	13.2	9.0	12.0
30-34	10.8	11.8	10.0	11.7	8.7	8.8	12.8	7.2	10.7
35-39	11.3	13.0	10.4	12.1	8.7	9.2	12.4	7.0	11.2
40-44	10.9	12.9	10.4	11.6	8.3	9.2	11.8	6.3	11.0
45-54	8.4	10.2	8.4	8.8	5.8	6.7	9.0	4.3	8.5
55-64	4.3	5.0	3.9	4.1	2.7	2.5	5.3	1.4	4.1
65+	1.0	1.3	0.6	0.9	0.5	0.4	1.1	0.1	1.0
15-64	11.4	12.6	10.7	11.2	8.8	9.0	12.8	7.7	11.2

Source: Derived using National Centre for Vocational Education Research data and Australian Bureau of Statistics 1999 June Quarter Estimated Resident Population data by sex/age

Table D.7: Vocational education and training participation rates 1999 (all persons): All persons by age and State/Territory, 1999 (per cent)

Age	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
15	8.7	6.6	10.2	5.9	6.7	1.7	13.5	1.2	7.8
16	23.5	16.9	21.9	13.1	15.7	20.8	29.6	4.9	19.7
17	27.0	21.4	26.7	18.5	26.6	26.0	26.8	11.4	24.6
18	34.2	37.7	29.3	29.4	31.6	26.5	30.8	29.1	33.2
19	29.6	36.9	24.9	28.9	25.3	24.5	24.7	31.2	29.9
20	23.8	29.8	21.0	25.1	20.5	20.5	23.5	23.0	24.5
21	19.2	24.2	18.4	21.1	15.9	16.2	19.6	17.2	20.0
22	16.6	20.9	15.6	17.5	13.1	14.1	14.9	13.1	17.0
23	14.8	18.5	14.2	17.2	12.2	12.3	14.6	12.2	15.4
24	13.3	17.0	13.4	15.4	11.2	12.0	14.0	10.3	14.1
25-29	11.7	15.2	12.0	13.5	10.3	10.7	12.7	9.2	12.6
30-34	10.3	13.1	10.8	11.8	9.0	9.4	12.5	7.4	11.0
35-39	10.0	13.1	10.4	11.3	8.3	9.0	11.9	6.8	10.7
40-44	9.3	12.3	9.8	10.5	7.3	8.3	10.7	5.8	9.9
45-54	7.1	9.5	7.7	8.0	5.1	6.0	7.7	3.9	7.6
55-64	3.9	4.8	3.8	3.8	2.6	2.5	4.5	1.5	3.9
65+	1.2	1.3	0.7	1.0	0.6	0.4	0.9	0.2	1.0
15-64	11.0	13.5	11.2	11.4	9.2	9.4	12.7	8.0	11.4

Source: Derived using National Centre for Vocational Education Research data and Australian Bureau of Statistics 1999 June Quarter Estimated Resident Population data by sex/age

Table D.8: Vocational education and training participation rates 1998 (males): Males by age and State/Territory, 1998 (per cent)

Age	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
15	8.3	6.7	10.6	5.9	7.4	7.9	13.4	1.1	8.0
16	22.4	15.5	24.0	13.3	17.3	24.2	26.1	3.3	19.6
17	26.9	21.8	28.2	17.5	29.2	29.2	29.3	9.4	25.2
18	35.5	37.7	31.8	27.0	35.9	30.6	24.8	25.9	34.3
19	31.8	37.5	27.9	26.1	30.2	27.8	24.1	36.7	31.8
20	26.8	31.7	23.7	23.3	23.3	22.1	21.5	24.4	26.6
21	21.1	26.6	19.4	18.7	16.9	18.2	16.5	18.4	21.3
22	16.8	22.1	16.7	16.1	14.0	15.0	13.6	14.9	17.6
23	14.3	19.1	15.1	14.3	11.8	13.3	14.2	11.8	15.3
24	13.2	18.0	13.2	13.9	11.0	12.6	11.4	11.8	14.2
25-29	11.1	15.6	11.9	12.9	9.9	11.2	10.6	8.9	12.4
30-34	9.5	13.9	10.7	12.0	8.5	9.9	11.1	7.1	10.9
35-39	8.3	12.8	9.6	10.9	7.1	8.5	9.7	5.9	9.7
40-44	7.1	11.1	8.3	9.7	5.5	6.8	8.3	4.3	8.3
45-54	5.3	8.3	6.0	7.7	3.9	4.8	6.2	2.9	6.2
55-64	2.9	4.1	2.9	4.3	2.1	1.9	3.2	1.3	3.2
65+	1.0	1.2	0.4	1.4	0.5	0.2	0.8	0.2	0.9
15-64	10.1	13.4	10.8	10.9	8.9	9.6	10.9	7.7	11.0

Source: Derived using National Centre for Vocational Education Research data and Australian Bureau of Statistics 1998 June Quarter Estimated Resident Population data by sex/age

Table D.9: Vocational education and training participation rates 1998 (females): Females by age and State/Territory, 1998 (per cent)

Age	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
15	8.4	4.6	9.2	4.1	4.4	1.8	9.9	0.8	6.7
16	20.8	9.9	20.9	7.8	10.6	17.6	21.2	3.2	15.8
17	22.9	12.5	23.8	12.3	20.1	22.0	22.7	9.2	19.2
18	29.1	27.6	25.3	22.1	25.9	23.5	20.9	28.1	26.9
19	24.2	28.3	20.7	21.3	20.1	19.3	19.9	27.6	23.8
20	20.1	21.9	16.8	19.6	15.5	16.2	14.8	18.2	19.3
21	16.9	18.1	14.5	18.0	12.8	12.3	11.1	14.9	16.2
22	15.8	16.1	12.9	17.4	11.7	11.7	13.9	11.1	14.8
23	14.1	14.8	12.0	16.8	10.7	11.7	11.4	9.9	13.6
24	13.3	13.7	11.2	15.3	10.4	9.7	11.3	9.8	12.7
25-29	11.6	12.3	9.4	14.5	8.9	8.1	11.4	8.1	11.2
30-34	10.6	10.6	8.4	13.8	8.2	7.5	10.8	6.8	10.1
35-39	10.9	11.6	8.9	13.7	8.2	8.0	11.1	6.4	10.5
40-44	10.2	11.2	8.7	13.1	7.8	7.7	10.7	5.6	10.0
45-54	7.7	8.8	6.5	10.6	5.3	5.1	8.4	3.6	7.6
55-64	3.6	4.2	2.4	5.5	2.3	1.3	4.2	1.3	3.5
65+	0.7	1.1	0.3	1.4	0.5	0.2	1.9	0.1	0.8
15-64	10.8	11.1	9.3	12.3	8.3	7.8	11.2	7.1	10.3

Source: Derived using National Centre for Vocational Education Research data and Australian Bureau of Statistics 1998 June Quarter Estimated Resident Population data by sex/age

Table D.10: Vocational education and training participation rates 1998 (all persons): All persons by age and State/Territory, 1998 (per cent)

Age	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
15	8.4	5.7	9.9	5.0	6.0	4.9	11.7	1.0	7.4
16	21.7	12.8	22.5	10.6	14.1	21.0	23.7	3.2	17.8
17	25.0	17.2	26.1	14.9	24.8	25.6	26.1	9.3	22.3
18	32.4	32.8	28.7	24.6	31.0	27.2	23.0	26.9	30.7
19	28.1	33.1	24.4	23.8	25.2	23.7	22.1	32.3	28.0
20	23.6	27.0	20.3	21.5	19.5	19.2	18.4	21.5	23.1
21	19.0	22.4	17.0	18.3	14.9	15.2	14.0	16.8	18.8
22	16.3	19.2	14.9	16.8	12.9	13.4	13.8	13.1	16.3
23	14.3	17.0	13.6	15.5	11.3	12.5	12.9	10.9	14.5
24	13.3	15.9	12.2	14.6	10.7	11.1	11.4	10.8	13.5
25-29	11.4	14.0	10.7	13.7	9.4	9.6	11.0	8.5	11.8
30-34	10.1	12.2	9.6	12.9	8.3	8.7	11.0	7.0	10.5
35-39	9.6	12.2	9.3	12.3	7.7	8.2	10.4	6.1	10.1
40-44	8.7	11.2	8.5	11.4	6.7	7.2	9.4	5.0	9.2
45-54	6.5	8.5	6.3	9.1	4.6	5.0	7.2	3.3	6.9
55-64	3.2	4.2	2.6	4.9	2.2	1.6	3.6	1.3	3.3
65+	0.8	1.1	0.4	1.4	0.5	0.2	1.3	0.2	0.8
15-64	10.5	12.3	10.1	11.6	8.6	8.7	11.0	7.4	10.7

Source: Derived using National Centre for Vocational Education Research data and Australian Bureau of Statistics 1998 June Quarter Estimated Resident Population data by sex/age

Participation figures in this report relate to those students who were 'tutored': that is, they had at least one outcome, which was not recognition of prior learning or credit transfer. However, the enrolments and hours for these other students are included in the calculation of load pass rates (*Key Performance Measure 1 & 5*). Table D.18 shows the figures for the 'tutored' students, as well as the other students whose only activity for the year was through recognition of prior learning or credit transfer.

SKILL OUTPUTS

Units of competency achieved

Calculation of units of competency achieved are based on data submitted to the national vocational education and training data collection at the National Centre for Vocational Education Research. Achievement is identified as either a successful outcome (01) in the enrolment file associated with a unit of competency or by the States and Territories in the competencies achieved file.

Remaining modules completed

Remaining modules completed are based on enrolment data submitted to the national vocational education and training data collection at the National Centre for Vocational Education Research. Modules completed are identified as enrolments with a successful outcome (01) not associated with any unit of competency acheived.

LOAD PASS RATES

Data source

Load pass rate calculations are based on the nominal hours-supervised associated with the enrolment data submitted to the national vocational education and training data collection at the National Centre for Vocational Education Research. Table D.11 shows the outcome codes currently reported under the Australian Vocational Education and Training Management Information Statistical Standard.

The hours excluded from all calculations of load pass rates in this chapter are:

- for 1999 the hours from enrolments associated with a course/qualification where the intent is not vocational (VET Flag = N on the course) and those enrolments not associated with a course/qualification with vocational intent (VET Flag = N on the enrolment).
- for 1997 and 1998 the module curriculum hours associated with a course reported as a Stream 1000 (recreation, leisure and personal enrichment) course.
- hours from fee-for-service activity (in 1997, 1998 and 1999) or overseas-full-fee-paying activity from private providers (in 1999 only)
- hours associated with activity from an overseas training provider location
- hours from modules or units of competency consisting of less than 10 or greater than 400 hours[1]
- hours associated with vocational education and training delivered in schools (not all States and Territories are currently reporting this information).

[1] In some States, Victoria in particular, nominal hours supervised have not been recorded for all units of competency and as such are not included in the calculation of load pass rates.

Table D.11: Outcomes reported under the Australian Vocational Education and Training Management Information Statistical Standard

1999 Outcome Codes	
01 - Assessable enrolment - successfully completed.	06 - Status (or credit) granted through recognition of prior learning (RPL).
02 - Assessable enrolment - not successfully completed.	09 - Status (or credit) granted through credit transfer (CT) arrangements.
03 - Non-assessable enrolment - not satisfactorily completed.	10 - Withdrawn.
04 - Non-assessable enrolment - satisfactorily completed.	90 - Result not available.
05 - Continuing studies (into next collection period).	

1997-1998 Outcome Codes	
01 - Student assessed - passed	09 - Status granted - credit transfer
02 - Student assessed - failed	10 - Withdrew - without failure
03 - Student assessed - result withheld	11 - Withdrew - failed
04 - No assessment - satisfactory completion of class hours	12 - Withdrew - transferred
05 - No assessment - studies not yet completed	90 - Not stated - blank - information not provided
06 - Status granted - recognition of prior learning	

Note: Differences between State and Territory systems contribute to differences in outcomes observed between jurisdictions. For example, some States and Territories may keep a 'study not yet completed' record for a longer time than other States and Territories, before it becomes reclassified as a failure.

Data adjustments

The total number of hours and enrolments reported in 1997, 1998 and 1999 as part of the national vocational education and training collection were adjusted for invalid enrolments, using information supplied by the non-financial activity auditors at the National Centre for Vocational Education Research. For further information on these adjustments, see the data adjustment notes in this appendix for Chapter 6.

In 1997 and 1998, Queensland's RPL figures were adjusted to equate to the national average as the level of RPL reported in those years was deemed to be low due to miscoding by providers. Following educative action taken within the Queensland system, the 1999 figure is considered to be an accurate reporting of RPL outcomes.

In 1999 for load pass rate calculations Western Australia, Australian Capital Territory and Tasmania have had their '02 - Assessable enrolment - not successfully completed' outcome hours adjusted to exclude non-finalised outcomes. In Western Australia this represents 1,652,983 hours, in Tasmania 179,480 hours in the Australian Capital Territory 52,462 hours for the purposes of calculating pass rates.

These adjustments are reflected in the outcomes (AHC) by State/Territory, 1999 table below and are include in the calculation of pass rates reported in key performance measure 1 and the equity groups in key performance measure 5.

Load pass rate definition

For 1999 the calculation of the load pass rate is based on the nominal hours-supervised associated with each outcome based on the following formula:

$$\text{Load Pass Rate} = \frac{\text{01 (successful)}}{\text{01 (successful) + 02 (not successful) + 10 (withdrawn)}} \times 100$$

For 1997-98 the calculation of the load pass rate is based on the curriculum hours associated with each module outcome based on the following formula using the previous module outcome codes:

$$\text{Load Pass Rate} = \frac{\text{01 (passed)}}{\text{01 (passed)+ 02 (failed) + 10 + 11 + 12 (withdrew: no fail, fail and transferred)}} \times 100$$

Table D.12: Outcomes (enrolments) by State/Territory, 1999

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
01 Assessable enrolment - successfull completed	2,017,368	1,553,678	985,065	583,061	488,093	147,990	72,390	98,244	5,945,889
02 Assessable enrolment - not successfully completed	160,563	305,924	228,442	38,855	137,379	25,047	19,886	21,216	937,312
03 Non-assessable enrolment - not satisfactorily completed	34,001	3,453	3,007	245	384	136	<5	6	41,236
04 Non-assessable enrolment - satisfactorily completed	171,557	107,048	79,521	37,959	33,584	1,744	39	2,918	434,370
05 Continuing studies	118,098	211,220	157,566	63,005	75,179	27,647	6,993	13,924	673,632
06 Status (or credit) granted through recognition of prior learning	120,573	53,014	14,446	43,826	7,058	10,316	4,057	12,564	285,854
09 Status (or credit) granted through credit transfer arrangements	304,182	44,193	5,992	3,470	49,974	12,402	7,805	663	428,681
10 Withdrawn	538,151	185,208	45,583	49,688	63,736	9,067	8,028	3,153	902,614
90 Result no available	5,951	75,570	92,796	9,893		1,173	2,419	81	187,883
All outcomes	3,470,444	2,539,308	1,612,418	830,002	855,387	235,522	121,621	152,769	9,817,471
Invalid enrolments adjustment factor	8.52	3.68	7.03	1.61	2.61	3.12	5.55	4.73	5.67
Adjusted total	3,174,762	2,445,861	1,499,065	816,639	833,061	228,174	114,871	145,543	9,260,820

Source: National Centre for Vocational Education Research 1999 national vocational education and training collection, vocational programs, with nominal hours supervised between 10 and 400

Table D.13: Outcomes (enrolments) by State/Territory, 1998

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
01 Student assessed - passed	1,848,670	1,539,650	822,091	446,632	460,539	127,315	58,345	103,338	5,406,580
02 Student assessed - failed	130,875	267,166	205,044	28,549	67,087	14,800	17,610	7,740	738,871
03 Student assessed - result withheld	17,062	20,311	706	7,488	319	<5	<5	617	46,508
04 No assessment - satisfactory completion of class hours	100,480	112,635	98,996	44,466	23,179	1,584	782	3,586	385,708
05 No assessment - studies not yet completed	124,723	205,505	216,056	39,482	67,156	21,896	8,173	19,998	702,989
06 Status (or credit) granted through recognition of prior learning	88,865	78,604	46,734	40,286	4,750	9,574	1,705	18,103	288,621
09 Status (or credit) granted through credit transfer arrangements	222,662	33,371	1,212	2,236	48,746	15,643	7,891	615	332,376
10 Withdrew - without failure	98,496	118,372	13,451	43,520	42,083	5,229	5,798	5,096	332,045
11 Withdrew - failed	327,139	70,932	35,795	706	22,996	1,862	141	15,068	474,639
12 Withdrew - transferred	479	5,555	64	32	<5	<5	91	17	6,245
90 Not stated	31,543	98,946	205,061	32,639	44,752	20,074	112	677	433,804
Unknown	72,302	21	1,151			1,522			74,996
All outcomes	3,063,296	2,551,068	1,646,361	686,036	781,610	219,507	100,649	174,855	9,223,382
Invalid module enrolments adjustment factor	6.77	7.90	5.43	4.10	3.17	9.74	7.18	8.24	6.44
Adjusted total	2,855,911	2,349,534	1,556,964	657,909	756,833	198,127	93,422	160,447	8,629,396

Source: National Centre for Vocational Education Research 1998 national vocational education and training collection, streams 2100-4500 and module only enrolments, where module hours between 10 and 400

Table D.14: Outcomes (AHC) by State/Territory, 1999

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
01 Assessable enrolment - successfully completed	61,968,982	51,220,921	29,500,283	16,073,615	16,203,770	4,314,960	2,208,505	3,345,200	184,836,236
02 Assessable enrolment - not successfully completed	5,486,722	11,366,828	7,816,690	1,192,147	3,490,417	585,950	665,633	720,440	31,324,827
03 Non-assessable enrolment - not satisfactorily completed	1,695,469	162,570	178,988	7,099	11,418	3,905	200	170	2,059,819
04 Non-assessable enrolment - satisfactorily completed	5,923,258	4,188,703	2,248,243	1,177,628	1,984,858	50,648	945	192,521	15,766,804
05 Continuing studies	3,690,359	7,124,118	4,889,464	1,918,960	2,140,297	899,024	269,069	468,547	21,399,838
06 Status (or credit) granted through recognition of prior learning	3,505,632	1,654,420	405,742	1,127,113	247,298	300,533	122,269	424,684	7,787,691
09 Status (or credit) granted through credit transfer arrangements	8,774,410	1,514,932	152,559	85,593	1,594,505	361,248	231,751	17,224	12,732,222
10 Withdrawn	18,720,308	6,958,777	1,738,558	1,484,722	2,406,986	272,694	302,949	126,422	32,011,416
90 Result not available	161,413	2,954,563	2,586,747	289,839	1,652,983	24,406	83,347	2,144	7,755,442
All outcomes	109,926,553	87,145,832	49,517,274	23,356,716	29,732,532	6,813,368	3,884,668	5,297,352	315,674,295
Invalid enrolments adjustment factor	8.52	3.68	7.03	1.61	2.61	3.12	5.55	4.73	5.67
Adjusted total	100,560,811	83,938,865	46,036,210	22,980,673	28,956,513	6,600,791	3,669,069	5,046,787	297,775,562

Source: National Centre for Vocational Education Research 1999 national vocational education and training collection, vocational programs, with nominal hours supervised between 10 and 400

Table D.15: Outcomes (AHC) by State/Territory, 1998

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
01 Student assessed - passed	58,866,183	50,408,647	25,671,499	12,443,224	15,445,770	3,936,818	1,768,195	3,443,584	171,983,920
02 Student assessed - failed	4,788,791	9,474,769	7,004,073	834,369	2,593,763	435,391	559,390	302,668	25,993,214
03 Student assessed - result withheld	540,150	679,834	18,306	202,797	15,242	159	60	25,631	1,482,179
04 No assessment - satisfactory completion of class hours	5,663,110	4,880,500	3,225,180	1,352,283	1,328,513	67,678	23,342	358,288	16,898,894
05 No assessment - studies not yet completed	3,662,237	7,412,838	6,404,850	1,089,459	2,152,416	628,587	314,910	572,350	22,237,647
06 Status (or credit) granted - through recognition of prior learning	2,826,359	2,450,576	1,365,089	1,050,376	211,185	306,328	52,087	566,211	8,828,211
09 Status (or credit) granted - through credit transfer arrangements	7,434,002	1,006,443	35,526	55,431	1,634,518	483,806	230,118	16,552	10,896,396
10 Withdrew - without failure	3,545,667	4,420,863	384,012	1,268,708	1,546,228	182,087	223,399	188,863	11,759,827
11 Withdrew - failed	12,000,116	2,615,269	1,608,405	24,784	829,575	54,215	5,309	567,454	17,705,127
12 Withdrew - transferred	13,875	218,279	2,174	1,504	105	407	5,210	425	241,979
90 Not stated	1,084,322	3,333,331	5,521,890	2,180,485	1,734,119	510,761	4,354	25,609	14,394,871
Unknown	1,590,641	576	26,847			59,438			1,677,502
All outcomes	102,015,453	86,901,925	51,267,851	20,503,420	27,491,434	6,665,675	3,186,374	6,067,635	304,099,767
Invalid module enrolments adjustment factor	6.77	7.90	5.43	4.10	3.17	9.74	7.18	8.24	6.44
Adjusted total	95,109,007	80,036,673	48,484,007	19,662,780	26,619,956	6,016,438	2,957,592	5,567,662	284,515,742

Source: National Centre for Vocational Education Research 1998 national vocational education and training collection, streams 2100-4500 and module only enrolments, where module hours between 10 and 400

In 1998, Western Australia changed its policy about the length of time before 'study not yet completed' enrolment records are classified as a failure. Its pass rates and completion rates are therefore not comparable to previous years.

In 1998, Queensland changed its policy about recording outcomes, which also affects their pass and completion rates.

Table D.16: Load pass rate for government-funded only programs: by State/Territory, 1999 (per cent)

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
Pass rate	71.2	73.5	76.6	85.9	73.0	82.3	71.0	80.2	74.3

Table D.17: Continuing enrolments: by State/Territory, 1999

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
Total enrolments	118,098	211,220	157,566	63,005	75,179	27,647	6,993	13,924	673,632
Total hours	3,690,359	7,124,118	4,889,464	1,918,960	2,140,297	899,024	269,069	468,547	21,399,838

Table D.18: Recognition of prior learning (RPL) and credit transfer (CT) students not in tuition, 1999

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
Students excluding RPL/CT**	510,513	468,632	274,360	123,840	118,218	30,133	18,318	17,955	1,561,968
RPL/credit transfer only students	8,013	2,179	1,027	1,207	1,888	500	370	197	15,381
Students including RPL/CT only	518,526	470,811	275,387	125,047	120,106	30,633	18,688	18,152	1,577,349

Source: National Centre for Vocational Education Research 1999 national vocational education and training collection.

* excludes vocational education and training in schools

** adjusted for student enrolment no participation

SUCCESSFUL COMPLETIONS BY INDIVIDUAL STUDENTS

Pass rates at the student level are based on the enrolment data submitted to the national vocational education and training data collection at the National Centre for Vocational Education Research.

The enrolments excluded from all calculations of pass rates at the student level in this chapter are:

- for 1999 the enrolments associated with a course/qualification where the intent is not vocational (VET Flag = N on the course) and those enrolments not associated with a course/qualification with vocational intent (VET Flag = N on the enrolment).
- enrolments from fee-for-service activity or overseas-full-fee-paying activity from private providers
- enrolments associated with activity from an overseas training provider location
- enrolments associated with vocational education and training delivered in schools (not all States and Territories are currently reporting this information).

Pass rate at the student level

For 1999 the calculation of the student level pass rate is based on the outcomes of enrolments on the following formula:

$$\text{Pass Rate (at the student level)} = \frac{01 \text{ (successful)} + 04 \text{ (satisfactory)}}{01 \text{ (successful)} + 02 \text{ (not successful)} + 03 \text{ (unsatisfactory)} + 04\text{(satisfactory)} + 10 \text{ (withdrawn)}} \times 100$$

Students are then categorised as completing nearly all (>95%), none (<5%) or some enrolment activity during 1999.

OTHER SUCCESSFUL OUTPUTS

Credit in modules or units of competency

Status or credit can also be granted in a unit of competency or module for equivalent subjects completed at an education or training institution. This 'credit transfer' is essentially an administrative transaction but is important for determining eligibility for recognised qualifications. In 1999 there were 428,700 credit transfer statuses granted, corresponding to 12.7 million hours.

Continuing enrolments

For some enrolments, particularly those in correspondence, self-paced learning or flexible delivery modes, training activity continues past the end of the 1999. An as-yet unknown proportion of these enrolments will result in a pass in 2000. In 1999 there were 673,600 continuing enrolments with total hours of 21.4 million.

Table D.19: Proportion of industry contribution to total factor income, 1998/1999

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
Agriculture, forestry and fishing	2.6	3.0	4.2	5.9	4.1	6.3	3.9	0.1	3.3
Mining	1.7	2.1	5.3	2.4	17.9	2.1	14.2	0.0	4.3
Manufacturing	13.7	17.0	11.4	17.5	10.2	15.2	4.4	1.7	13.6
Electricity, gas and water	2.3	2.3	2.6	3.6	2.8	5.4	1.7	2.2	2.5
Construction	6.9	5.8	7.4	5.7	8.2	5.6	7.0	6.3	6.7
Wholesale trade	5.8	6.3	6.1	4.6	4.1	4.1	3.2	2.2	5.6
Retail trade	5.8	5.8	7.5	6.4	5.7	7.7	6.2	4.9	6.1
Accommodation, cafes and restaurants	2.6	1.8	3.3	2.3	1.7	2.7	3.3	2.3	2.4
Transport and storage	5.5	5.2	6.4	5.4	5.4	4.7	5.9	3.4	5.5
Communication	3.2	3.5	3.3	2.8	2.9	2.9	3.5	2.9	3.2
Finance and insurance	7.9	7.7	4.9	5.1	4.2	4.9	3.0	3.4	6.6
Property and business services	13.0	12.0	8.9	8.7	9.5	4.9	9.6	11.9	11.1
Governmen administration and defence	3.4	2.9	4.3	3.4	2.7	5.6	8.7	31.3	4.0
Education	4.3	5.0	4.8	5.1	3.8	5.6	6.0	6.3	4.6
Health and community services	5.6	6.6	6.5	7.6	6.2	8.9	6.8	5.8	6.6
Culture and recreational services	2.0	2.3	1.7	1.7	1.6	1.6	3.3	3.0	2.0
Personal and other services	2.2	2.3	2.7	2.8	2.4	2.6	3.2	3.8	2.4
Ownership of dwellings	11.4	8.7	8.8	8.8	6.9	9.2	6.1	8.3	9.4
General government *	2.0	2.0	2.4	2.4	2.0	3.3	2.5	5.1	2.2
All industries	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Australian Bureau of Statistics catalogue number 5220.0

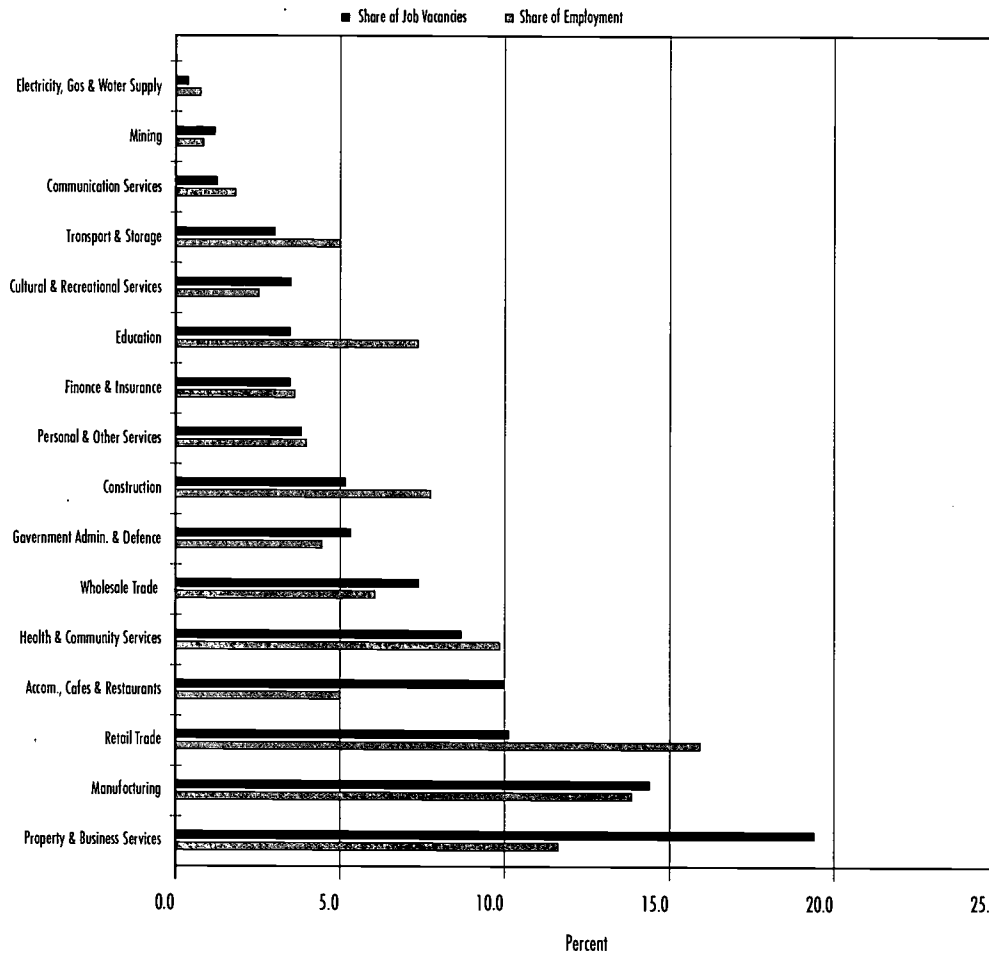
* State details for general government gross operating surplus by industry are not available.

Table D.20: Average annual gross value added growth rates: by industry average 1997-98 prices (per cent)

	Average annual rate of growth (per cent)	
	Five year period 1994-95 to 1998-99	One year period 1997-98 to 1998-99
Agriculture, forestry & fishing	9.5	8.6
Mining	3.7	-2.9
Manufacturing	1.5	2.5
Electricity, gas & water supply	0.3	1.6
Construction	5.7	6.0
Wholesale trade	5.3	7.6
Retail trade	3.9	2.9
Accommodation, cafes & restaurants	3.3	7.7
Transport & storage	3.6	3.2
Communication services	8.8	9.5
Finance & insurance	6.1	5.0
Property & business services	6.0	9.0
Government administration & defence	0.6	-2.2
Education	1.0	2.3
Health & community services	2.7	1.6
Cultural & recreational services	2.1	3.5
Personal & other services	2.9	1.8
All industries	3.7	4.0

Source: Australian Bureau of Statistics catalogue number 1350.0

Figure D.1: Distribution of employment and job vacancies by industry (per cent)



Source: Australian Bureau of Statistics Job Vacancies and Overtime, May1999, catalogue number 6354.0; Australian Bureau Statistics Labour Force, May 1999, catalogue number 6203.0

Table D.21: Age profile of the Australian workforce: aged 15-64 years by industry sector, May 1999 (per cent)

	Age in years (per cent)						
Agriculture, forestry and fishing	5.7	7.7	17.7	23.1	20.7	25.0	100.0
Mining	1.8	8.3	27.6	34.9	22.6	4.8	100.0
Manufacturing	4.3	10.0	27.5	27.7	21.1	9.4	100.0
Electricity, gas and water supply	0.9	6.3	25.7	29.2	29.2	8.8	100.0
Construction	4.8	12.2	25.8	27.0	20.2	10.1	100.0
Wholesale trade	3.7	10.6	27.7	28.2	20.0	9.8	100.0
Retail trade	23.5	16.1	21.0	17.6	15.5	6.3	100.0
Accommodation, cafes & restaurants	14.7	20.5	23.8	18.6	15.3	7.0	100.0
Transport and storage	2.4	8.2	24.5	28.2	25.2	11.5	100.0
Communication services	2.4	10.5	28.2	28.1	24.0	6.7	100.0
Finance and insurance	1.8	10.8	38.3	23.6	19.5	5.9	100.0
Property and business services	3.7	11.0	27.7	26.0	21.8	9.8	100.0
Government administration & defence	1.3	6.7	24.8	29.8	27.0	10.4	100.0
Education	1.6	6.1	19.5	30.3	32.4	10.2	100.0
Health and community services	2.2	9.2	22.3	28.6	26.8	11.0	100.0
Cultural and recreational services	9.0	18.3	25.1	23.6	15.7	8.3	100.0
Personal and other services	7.6	10.7	24.4	27.7	20.2	9.4	100.0
All industries	7.2	11.3	24.7	25.5	21.6	9.8	100.0

Source: Australian Bureau Statistics Labour Force, May 1999, catalogue number 6203.0

Table D.22: Shifts in full time employment and employment growth: by full time/part time categories by industry (per cent)

	Proportion of the workforce employed full time			Average annual growth in employment over the five year period May 1993 to May 1998 (per cent)		Average annual growth in employment over the one-year period May 1997 to May 1998 (per cent)	
	May-94	May-98	May-99	Full-time	Part-time	Full-time	Part-time
Agriculture, forestry and fishing	78.9	77.2	75.5	0.5	4.9	0.0	10.2
Mining	95.7	96.2	98.8	-2.3	-15.3	-10.5	-72.7
Manufacturing	89.5	88.7	90.2	-0.6	-2.1	-0.9	-15.2
Electricity, gas and water supply	96.9	97.7	96.6	-5.3	-3.6	0.2	53.3
Construction	84.5	86.8	87.3	4.0	-0.6	4.8	2.6
Wholesale trade	86.1	84.7	84.6	-0.9	1.6	-2.6	-1.9
Retail trade	57.3	56.4	55.0	2.1	4.2	3.8	9.7
Accommodation, cafes and restaurants	54.1	53.9	50.2	2.2	5.9	-7.9	7.2
Transport and storage	88.0	85.6	84.4	1.6	9.2	4.0	14.3
Communication services	91.7	85.5	86.1	2.6	20.4	7.5	2.4
Finance and insurance	84.2	81.8	81.5	-1.8	2.0	-6.8	-4.8
Property and business services	77.5	75.8	75.7	7.9	10.9	3.7	4.3
Government administration and defence	89.3	87.4	86.1	-0.5	6.4	7.6	21.2
Education	69.0	66.6	66.8	1.6	4.0	2.8	2.0
Health and community services	61.6	59.8	59.7	1.7	3.5	-1.3	-0.7
Cultural and recreational services	61.0	58.9	63.8	5.3	2.5	15.4	-6.1
Personal and other services	72.9	70.2	69.9	1.6	4.9	-3.3	-2.3
All industries	75.7	73.8	73.4	1.5	4.2	1.2	3.4

Source: Australian Bureau of Statistics Labour Force Australia, Australian Bureau of Statistics catalogue numbers 6204.0 and 6203.0

Table D.23: Unmet demand for post-school education ond troining: by provider sector, 1996-1999 (persons) (confidence limits)

	1996	1997	1998	1999
TAFE	48,300	35,300	35,200	45,800
	(40,600-56,000)	(28,700-41,900)	(29,100- 41,300)	(38,300-53,300)
Other vocational education and training*	13,800	12,800	12,900	13,100
	(9,600-18,000)	(8,700 - 16,900)	(9,100 - 16,700)	(8,900 - 17,300)
Total vocational education and training	62,100	48,100	48,100	58,900
	(53,500-70,700)	(40,400-55,800)	(41,200-55,000)	(50,700-67,100)
University	25,300	18,300	22,900	20,000
	(19,700-30,900)	(13,700-22,900)	(17,900-27,900)	(14,800-25,200)
Other education institutions	19,000	8,700	12,500	13,400
	(14,100-23,900)	(5,300-12,100)	(8,800-16,200)	(9,200-17,600)
Total	106,400	75,100	83,500	92,300
	(95,500-117,300)	(65,900-84,300)	(75,300-91,700)	(82,500-102,100)

Confidence limits at the 95 per cent significance level are shown in parentheses.

Source: Australian Bureau of Statistics, Transition from Education to Work Australia, catalogue number 6227.0, unpublished data and confidence intervals supplied by the ABS.

*Includes persons wishing to enrol in a program which does not (of itself) result in a recognised qualification.

Vocational education and training enrolment is on a module/unit of competency basis and many students enrol only in the programs they need to enhance their skill levels.

Employers' views on vocational education and training

The Survey of Employer Views is a sample survey and provides estimates of the results which would be found had all employers in Australia been interviewed. Because the employer survey estimates are based on information obtained from a sample of employers only, an allowance for sampling variability should be made when using the results.

Sampling variability can be measured by the 'standard error' which indicates the extent to which an estimate might have varied by chance because a sample of employers only was included. In terms of confidence intervals, we can be 95% confident that the true percentage value lies within two standard errors of the estimated value.

Where the employer survey estimates are presented in graphs in this chapter, the 95% confidence interval is shown on the graph for each point of data. Where estimates are presented in tables, an approximate guide to the allowance which should be made for 95% confidence interval can be gained from the standard error tables in this chapter.

USING THE STANDARD ERROR TABLES

The standard error tables provided in this chapter should be used as a guide to the 95% confidence interval on an estimate by using the size of the sample or population on which an estimate is based, in conjunction with the size of the estimate itself.

Because there are four different populations on which estimates in this survey are based, a separate standard error 'look-up' table is provided for each group as follows:

Table A	Employers with recent VET graduates, of whom at least one completed training after commencing their current employment (population A)
Table B	Employers with recent VET graduates, all of whom completed training before commencing their current employment (population B)
Table C	Employers with no VET graduates (population C)
Table AB	Employers with recent VET graduates (population A+B)

Example

The following table (*Table D.24 Employers by choice of training provider, per cent*) shows estimates for employers with recent VET graduates in the left column and employers with no VET graduates in the right column. This means the estimates in the left column of the table are based on population A+B and estimates in the right column are based on population C. In this Appendix, the standard error look-up table for population A+B is table AB, and for population C, table C.

The left column of Table D.24 shows that 42% of employers with recent VET graduates reported they would be more likely to choose TAFE for a training provider. Standard error table AB shows, the sample size upon which this estimate is based was 3,558. The table of standard errors also shows that for a sample size of 3,558, and a survey estimate of 40% (the closest to 42%), two standard errors is ±1.6 percentage point. In terms of confidence intervals, we can be close to 95% confident that the true percentage of employers with VET graduates who would choose TAFE, lies between 40.4% and 43.6%.

Table D.24: Employers by choice of training provider (per cent)

Choice of training provider	Employers with recent VET graduates	Employers with no VET graduates
More likely to choose TAFE	42	36
More likely to choose non-TAFE training provider	20	13
It would depend	34	31
Can't say at this stage	4	19
Total	**100**	**100**

Standard error tables

TABLE A	EMPLOYERS WITH RECENT VET GRADUATES, OF WHOM, AT LEAST ONE COMPLETED TRAINING AFTER COMMENCING THEIR CURRENT EMPLOYMENT (Population A) 2 standard errors % for estimated proportion (+ - this value for 95% confidence interval)											
Strata	**Population**	**Sample**	**5%/ 95%**	**10%/ 90%**	**15%/ 85%**	**20%/ 80%**	**25%/ 75%**	**30%/ 70%**	**35%/ 65%**	**40%/ 60%**	**45%/ 55%**	**50%**
Size												
SMALL	61,324	1,127	1.3%	1.8%	2.1%	2.4%	2.6%	2.7%	2.8%	2.9%	2.9%	3.0%
MEDIUM	15,200	837	1.5%	2.0%	2.4%	2.7%	2.9%	3.1%	3.2%	3.3%	3.3%	3.4%
LARGE	7,148	540	1.8%	2.5%	3.0%	3.3%	3.6%	3.8%	4.0%	4.1%	4.1%	4.1%
TOTAL	83,672	2,504	0.9%	1.2%	1.4%	1.6%	1.7%	1.8%	1.9%	1.9%	2.0%	2.0%
State/Territory												
NSW	27,966	518	1.9%	2.6%	3.1%	3.5%	3.8%	4.0%	4.2%	4.3%	4.3%	4.4%
VIC	19,383	422	2.1%	2.9%	3.4%	3.9%	4.2%	4.4%	4.6%	4.7%	4.8%	4.8%
QLD	16,306	369	2.2%	3.1%	3.7%	4.1%	4.5%	4.7%	4.9%	5.0%	5.1%	5.2%
SA	6,912	314	2.4%	3.3%	3.9%	4.4%	4.8%	5.1%	5.3%	5.4%	5.5%	5.5%
WA	8,448	283	2.6%	3.5%	4.2%	4.7%	5.1%	5.4%	5.6%	5.7%	5.8%	5.9%
TAS	2,302	295	2.4%	3.3%	3.9%	4.4%	4.7%	5.0%	5.2%	5.3%	5.4%	5.4%
NT	883	168	3.0%	4.2%	5.0%	5.6%	6.0%	6.4%	6.6%	6.8%	6.9%	7.0%
ACT	1,471	135	3.6%	4.9%	5.9%	6.6%	7.1%	7.5%	7.9%	8.1%	8.2%	8.2%
Total	83,672	2,504	0.9%	1.2%	1.4%	1.6%	1.7%	1.8%	1.9%	1.9%	2.0%	2.0%

TABLE B	EMPLOYERS WITH RECENT VET GRADUATES, ALL OF WHOM COMPLETED TRAINING BEFORE COMMENCING THEIR CURRENT EMPLOYMENT (Population B) 2 standard errors % for estimated proportion (+ - this value for 95% confidence interval)											
Strata	**Population**	**Sample**	**5%/ 95%**	**10%/ 90%**	**15%/ 85%**	**20%/ 80%**	**25%/ 75%**	**30%/ 70%**	**35%/ 65%**	**40%/ 60%**	**45%/ 55%**	**50%**
Size												
SMALL	26,757	709	1.6%	2.2%	2.6%	3.0%	3.2%	3.4%	3.5%	3.6%	3.7%	3.7%
MEDIUM	6,279	264	2.6%	3.6%	4.3%	4.8%	5.2%	5.5%	5.8%	5.9%	6.0%	6.0%
LARGE	581	81	4.5%	6.2%	7.4%	8.3%	9.0%	9.5%	9.9%	10.2%	10.3%	10.4%
TOTAL	33,617	1,054	1.3%	1.8%	2.2%	2.4%	2.6%	2.8%	2.9%	3.0%	3.0%	3.0%
State/Territory												
NSW	11,161	178	3.3%	4.5%	5.3%	6.0%	6.5%	6.8%	7.1%	7.3%	7.4%	7.5%
VIC	8,117	135	3.7%	5.1%	6.1%	6.9%	7.4%	7.9%	8.2%	8.4%	8.5%	8.6%
QLD	6,539	115	4.0%	5.6%	6.6%	7.4%	8.0%	8.5%	8.9%	9.1%	9.2%	9.3%
SA	2,711	129	3.8%	5.2%	6.2%	6.9%	7.5%	7.9%	8.2%	8.5%	8.6%	8.6%
WA	3,211	168	3.3%	4.5%	5.4%	6.0%	6.5%	6.9%	7.2%	7.4%	7.5%	7.5%
TAS	929	146	3.3%	4.6%	5.4%	6.1%	6.6%	7.0%	7.3%	7.5%	7.6%	7.6%
NT	359	104	3.6%	5.0%	5.9%	6.6%	7.2%	7.6%	7.9%	8.1%	8.3%	8.3%
ACT	591	79	4.6%	6.3%	7.5%	8.4%	9.1%	9.7%	10.1%	10.3%	10.5%	10.5%
Total	33,617	1,054	1.3%	1.8%	2.2%	2.4%	2.6%	2.8%	2.9%	3.0%	3.0%	3.0%

Standard error tables

TABLE C	EMPLOYERS WITH NO VET GRADUATES (Population C) 2 standard errors, % for estimated proportion (+ - this value for 95% confidence interval)											
Strata	**Population**	**Sample**	**5%/ 95%**	**10%/ 90%**	**15%/ 85%**	**20%/ 80%**	**25%/ 75%**	**30%/ 70%**	**35%/ 65%**	**40%/ 60%**	**45%/ 55%**	**50%**
Size												
SMALL	193,255	1,961	1.0%	1.3%	1.6%	1.8%	1.9%	2.1%	2.1%	2.2%	2.2%	2.2%
MEDIUM	26,315	433	2.1%	2.9%	3.4%	3.8%	4.1%	4.4%	4.6%	4.7%	4.7%	4.8%
LARGE	2,879	101	4.3%	5.9%	7.0%	7.9%	8.5%	9.0%	9.4%	9.6%	9.8%	9.8%
TOTAL	222,449	2,495	0.9%	1.2%	1.4%	1.6%	1.7%	1.8%	1.9%	2.0%	2.0%	2.0%
State/Territory												
NSW	73,842	428	2.1%	2.9%	3.4%	3.9%	4.2%	4.4%	4.6%	4.7%	4.8%	4.8%
VIC	52,455	403	2.2%	3.0%	3.5%	4.0%	4.3%	4.6%	4.7%	4.9%	4.9%	5.0%
QLD	43,945	350	2.3%	3.2%	3.8%	4.3%	4.6%	4.9%	5.1%	5.2%	5.3%	5.3%
SA	18,294	322	2.4%	3.3%	4.0%	4.4%	4.8%	5.1%	5.3%	5.4%	5.5%	5.5%
WA	22,096	322	2.4%	3.3%	4.0%	4.4%	4.8%	5.1%	5.3%	5.4%	5.5%	5.5%
TAS	5,950	292	2.5%	3.4%	4.1%	4.6%	5.0%	5.2%	5.5%	5.6%	5.7%	5.7%
NT	2,244	181	3.1%	4.3%	5.1%	5.7%	6.2%	6.6%	6.8%	7.0%	7.1%	7.1%
ACT	3,623	197	3.0%	4.2%	5.0%	5.6%	6.0%	6.4%	6.6%	6.8%	6.9%	6.9%
Total	222,449	2,495	0.9%	1.2%	1.4%	1.6%	1.7%	1.8%	1.9%	2.0%	2.0%	2.0%

TABLE AB	EMPLOYERS WITH RECENT VET GRADUATES (Population A plus B) 2 standard errors, % for estimated proportion (+ - this value for 95% confidence interval)											
Strata	**Population**	**Sample**	**5%/ 95%**	**10%/ 90%**	**15%/ 85%**	**20%/ 80%**	**25%/ 75%**	**30%/ 70%**	**35%/ 65%**	**40%/ 60%**	**45%/ 55%**	**50%**
Size												
SMALL	88,081	1,836	1.0%	1.4%	1.6%	1.8%	2.0%	2.1%	2.2%	2.3%	2.3%	2.3%
MEDIUM	21,480	1,101	1.3%	1.8%	2.1%	2.3%	2.5%	2.7%	2.8%	2.9%	2.9%	2.9%
LARGE	7,728	621	1.7%	2.3%	2.8%	3.1%	3.3%	3.5%	3.7%	3.8%	3.8%	3.9%
TOTAL	117,289	3,558	0.7%	1.0%	1.2%	1.3%	1.4%	1.5%	1.6%	1.6%	1.6%	1.7%
State/Territory												
NSW	39,127	696	1.6%	2.3%	2.7%	3.0%	3.3%	3.4%	3.6%	3.7%	3.7%	3.8%
VIC	27,500	557	1.8%	2.5%	3.0%	3.4%	3.6%	3.8%	4.0%	4.1%	4.2%	4.2%
QLD	22,844	484	2.0%	2.7%	3.2%	3.6%	3.9%	4.1%	4.3%	4.4%	4.5%	4.5%
SA	9,624	443	2.0%	2.8%	3.3%	3.7%	4.0%	4.3%	4.4%	4.6%	4.6%	4.6%
WA	11,659	451	2.0%	2.8%	3.3%	3.7%	4.0%	4.2%	4.4%	4.5%	4.6%	4.6%
TAS	3,231	441	1.9%	2.7%	3.2%	3.5%	3.8%	4.1%	4.2%	4.3%	4.4%	4.4%
NT	1,242	272	2.3%	3.2%	3.8%	4.3%	4.6%	4.9%	5.1%	5.3%	5.3%	5.4%
ACT	2,062	214	2.8%	3.9%	4.6%	5.2%	5.6%	5.9%	6.2%	6.4%	6.5%	6.5%
Total	117,289	3,558	0.7%	1.0%	1.2%	1.3%	1.4%	1.5%	1.6%	1.6%	1.6%	1.7%

Student outcomes from vocational education and training

The 1999 Student Outcomes Survey was a census of all TAFE graduates and a stratified random sample of TAFE module completers who satisfied the following scope criteria:

graduates: completed a certificate, advanced certificate, associate diploma, diploma or bachelor's degree of at least 200 hours or one semester

module completers: successfully completed at least one module during 1998 in a stream of study between 2100 and 4500 and were not a graduate (as defined above) and had left the TAFE system at the time of completing the survey.

RELIABILITY OF ESTIMATES

Two types of error are possible in an estimate based on a survey: non-sampling error and sampling error.

Non-sampling error in the Student Outcomes Survey

Non-sampling error may occur for reasons such as non-response bias, incorrect responses, interviewer errors, attrition and processing errors.

Of those surveyed, approximately 56% of graduates and 52% of module completers responded. The accuracy of the results depends on how well those who responded represent all graduates or all module completers.

In surveys, often those who respond differ from those for whom there is no response. Those differences can influence results, which are no longer fully representative of the population as a whole.

For example, females may respond more readily than males. This can have consequences which extend across all results - this will disproportionately reflect the situation with respect to females. Additional investigation by the contractors for the Student Outcomes Survey revealed evidence of non-response biases in this study. The main possibility examined was gender bias. Females disproportionately responded to the survey (for example, 61% of female graduates responded compared with 50% of males). A similar pattern occurred for module completers, although it should be noted that the module completer data was weighted by gender and therefore this variation in response by gender was corrected by post-stratification.

Gender bias therefore had implications for many of the findings. For example, gender is associated with study choices (field of study) and outcomes.

A sample of those who did not respond to the survey were followed up by phone. From this follow up, evidence suggests that persons who completed the mail (postal) questionnaire were:

- more likely to be female
- less likely to be employed at the time of the survey
- less likely to say that the training helped them achieve their aim
- generally less likely to rate the overall quality of the training and specific aspects of the training as good (8-10 rating).

That is, male graduates and module completers, employed graduates and module completers (male and female) and graduates and module completers (both male and female) who felt the training helped them achieve their main reason for doing the training are generally less likely, to varying degrees, to complete the self-completion questionnaire than are other graduates and module completers. This is of some significance given that these factors are related to some of the key TAFE performance indicators. In addition, for graduates, respondents were generally less positive than non respondents on rating the overall quality of the training and specific aspects of the training.

The examination of non-response bias by the contractors was not exhaustive. For example, age also appears to be associated with responding, though this may vary from state to state. The examination of bias was made at the national level.

While the examination of non-response is an important improvement, there are known limitations to the non-response methodology employed. For example, the non-response follow-up did not consider the biases of the non-respondents to that effort. The size of the biases may vary from those presently uncovered, and other possible biases remain unexamined.

The biases appear to be underestimating the proportion of graduates who were employed at the time of the survey (see Table D.25).

Table D.25: Estimate of bias for selected survey outcome variables for graduates, 1999 Student Outcomes Survey

Survey outcome variable	Survey Estimate	Unbiased Estimate *	Difference[Bias]
	%	%	percentage points
Proportion employed at 28 May	72.8	75.8	+3.0
Proportion said course helped achieve aim	63.4	67.2	+3.8
The overall quality of the training	61.8	64.4	+2.6
Proportion rated the qualification as being well regarded by employers as 'good'	52.6	54.9	+2.3

Source: Investigation into non-response bias in 1999 SOS

* Unbiased Estimate - estimates which have been adjusted based on the telephone follow-up of a national sample of non-respondents to the 1999 SOS.

An analysis of the survey results for TAFE module completers found some statistically significant differences. The nature or pattern of these differences was very similar to that found for the TAFE graduates. However, the smaller sample sizes results in many of the differences being not statistically significant.

It should also be remembered that one of the main sources of bias, gender, was used to weight the module completer data and thus correct the gender non-response bias.

An attempt was made to quantify the impact of any bias **over and above the gender bias** on the survey results. Revised estimates have been calculated for key indicators reflecting adjustments to the estimates for bias. The impact on key survey indicators is shown in Table D.26.

Table D.26: Estimate of bias for selected survey outcome variables for module completers, 1999 Student Outcomes Survey

Survey outcome variable	Survey Estimate	Unbiased Estimate *	Difference[Bias]
	%	%	percentage points
Proportion employed at 28 May	67.5	69.5	+2.0
Proportion said course helped achieve aim	50.6	53.4	+2.8

Source: Investigation into non-response bias in 1999 SOS

* Unbiased Estimate - estimates which have been adjusted based on the telephone follow-up of a national sample of non-respondents to the 1999 SOS.

Although some bias has been identified in absolute terms, the bias is not large and is not likely to significantly impact on comparisons of estimates over time and across states.

Sampling error in the Student Outcomes Survey

Sampling error is a measure of the variability which occurs because a sample, rather than the entire population, responds to a survey. Since the estimates in this report are based on information provided by a sample then such estimates are subject to sampling variability; that is, they may differ from the estimates that would have been produced if all graduates or module completers had been included and responded to the survey. One measure of the likely difference is given by the standard error. There are about nineteen chances in twenty (or 95%) that the difference will be less than 2 standard errors.

Standard errors enable us to calculate confidence intervals, or significance levels, for the estimates. Significance levels in this context are defined as twice the standard error, which corresponds to a 95% confidence interval for the results. That is, if the survey were to be repeated there is a 95% chance that the new results obtained would be within the true value, plus or minus its significance level.

Significance levels are provided in the table below. In this table the Simple Random Sample formulae for the calculation of variances has been used and the standard error is the square root of the variance. ***Note that the significance limits relate to the sample size (that is, the number of actual respondents) on which an estimated proportion is based.***

As an example of how to use the table, assume that the estimate of interest is the proportion of module completers who were employed full-time at 28 May 1999. This proportion is 40.2% and is based on a sample of 4,152 respondents (who in turn represent 245,674 module completers). In the following table go to the nearest estimated proportion as identified across the top of the table (that is, 40%) and move down this column until you get to the closest sample size on which the proportion is based (4,000) which then gives a significance level of 1.5. Therefore a 95% confidence interval is plus or minus 1.5 percentage points; that is, we can be 95% sure that the true value for module completers employed full time is between 38.7% and 41.7%.

This table can be used for estimates for both graduates and module completers.

Table of significance levels

	Estimated proportion								
Sample size	**10%**	**20%**	**30%**	**40%**	**50%**	**60%**	**70%**	**80%**	**90%**
100	6.0	8.0	9.2	9.8	10.0	9.8	9.2	8.0	6.0
200	4.2	5.7	6.5	6.9	7.1	6.9	6.5	5.7	4.2
300	3.5	4.6	5.3	5.7	5.8	5.7	5.3	4.6	3.5
350	3.2	4.3	4.9	5.2	5.3	5.2	4.9	4.3	3.2
400	3.0	4.0	4.6	4.9	5.0	4.9	4.6	4.0	3.0
450	2.8	3.8	4.3	4.6	4.7	4.6	4.3	3.8	2.8
550	2.6	3.4	3.9	4.2	4.3	4.2	3.9	3.4	2.6
600	2.4	3.3	3.7	4.0	4.1	4.0	3.7	3.3	2.4
700	2.3	3.0	3.5	3.7	3.8	3.7	3.5	3.0	2.3
1 100	1.8	2.4	2.8	3.0	3.0	3.0	2.8	2.4	1.8
1 300	1.7	2.2	2.5	2.7	2.8	2.7	2.5	2.2	1.7
4 000	0.9	1.3	1.4	1.5	1.6	1.5	1.4	1.3	0.9
4 500	0.9	1.2	1.4	1.5	1.5	1.5	1.4	1.2	0.9
6 000	0.8	1.0	1.2	1.3	1.3	1.3	1.2	1.0	0.8
8 000	0.7	0.9	1.0	1.1	1.1	1.1	1.0	0.9	0.7
12 000	0.5	0.7	0.8	0.9	0.9	0.9	0.8	0.7	0.5
30 000	0.3	0.5	0.5	0.6	0.6	0.6	0.5	0.5	0.3
65 000	0.2	0.3	0.4	0.4	0.4	0.4	0.4	0.3	0.2

VET participation, outputs & outcomes achieved by client groups

DATA SOURCE

The principal data source was the National Centre for Vocational Education Research's national collection, along with Australian Bureau of Statistics population data and client group data available from the 1999 *Student Outcomes Survey.*

For participation and outcome data source and data adjustments see the data adjustment notes in this appendix for *Skill outputs produced annually within the domain of formally recognised VET (Key Performance Measure 1).*

Figures for indigenous people, and for speakers of languages other than English at home, are sourced from Australian Bureau of Statistics census data. The latest Australian Bureau of Statistics disability population figures available are from 1998.

Table D.27 shows the percentage change between 1998 and 1999 in the proportion of students whose 'client group was not reported'.

Table D.27: Percentage change in 'students with client group not reported': by equity client group and State/Territory, All ages, 1998 to 1999 (per cent)

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
Aboriginal and Torres Strait Islander people	-4.8	0.0	-1.9	-20.8	4.5	5.9	-9.6	-5.1	-3.7
NESB (language spoken at home)	-3.7	0.0	-12.9	-18.5	-4.4	-70.8	-28.5	-5.5	-7.2
NESB (country of birth)	-6.5	0.9	2.6	-18.2	-3.8	6.8	-28.0	-0.8	-3.7
People with a disability	-7.4	-8.7	6.2	-27.8	4.9	3.9	-23.0	-1.5	-6.6

DEFINITION OF REGIONS

The geographic region classification was developed to provide geographic location information about vocational education and training students. The Department of Primary Industries and Energy and the Department of Education, Training and Youth Affairs have developed geographic classifications based on statistical local areas. The four classifications listed below are derived by mapping the student's residential postcode to a statistical local area and then grouping the appropriate Department of Primary Industries and Energy or Department of Education, Training and Youth Affairs geographic regions. This work was done by the National Centre for Vocational Education Research.

Capital city

Consists of:

- Australian Bureau of Statistics State and Territory capital city statistical divisions (Sydney, Melbourne, Brisbane, Adelaide, Perth, Hobart, Darwin and Canberra)
- Department of Primary Industries and Energy Rural, Remote and Metropolitan Zones classification: Capital city
- Department of Education, Training and Youth Affairs Rural/Remote classification: Capital.

Other metropolitan

Consists of:

- statistical divisions associated with urban centres of population greater than 100,000 (Geelong, Newcastle, Wollongong, Gold Coast and Tweed, Townsville-Thuringowa and Queanbeyan)
- Department of Primary Industries and Energy rural, remote and metropolitan zones classification: Other metropolitan
- Department of Education, Training and Youth Affairs rural/remote classification: Urban.

Rural

Consists of:

- statistical local areas associated with urban centres of population 5,000 or more and not classified as remote (Albury-Wodonga, Dubbo, Lismore, Orange, Port Macquarie, Tamworth, Wagga Wagga, Ballarat, Bendigo, Shepparton-Mooroopna, Bundaberg, Cairns, Mackay, Maroochydore-Mooloolaba, Rockhampton, Toowoomba, Whyalla, Bunbury, Launceston, Bathurst, Wangaratta, Morwell, Gladstone, Mount Gambier, Mandurah, Devonport, Blayney, Bairnsdale, Banana, Berri, Busselton, Scottsdale and Litchfield)
- Department of Primary Industries and Energy rural, remote and metropolitan zones classification: Large rural centre, small rural centre, other rural area
- Department of Education, Training and Youth Affairs rural/remote classification: Provincial, rural, agricultural.

Remote

Consists of:

- urban centres with an Index of Remoteness greater than 10.5 (Blackwater, Bowen, Emerald, Mareeba, Moranbah, Mount Isa, Roma, Broome, Carnarvon, East Pilbara, Esperance, Kalgoorlie/Boulder, Karratha, Port Hedland, Alice Springs, Katherine, Brewarrina, Walgett, Orbost, Boulia, Coober Pedy, Exmouth, Strahan and Jabiru). The Index of Remoteness defines the boundary between rural and remote areas of Australia and is based on the distance and population density characteristics of the area of interest
- Department of Primary Industries and Energy rural, remote and metropolitan zones classification: Large remote centre, other remote centre
- Department of Education, Training and Youth Affairs rural/remote classification: Remote, isolated.

Public expenditure per publicly funded output and Public expenditure per total recognised output

DATA SOURCE

Efficiency measures

Estimates of government recurrent expenditure used in calculating unit costs have been sourced primarily from data prepared by States and Territories under the AVETMIS Standard for VET financial data. Revenue and expenditure items used to estimate government recurrent expenditure from this data are subject to audit from 1998. Supplementary financial information relating to vocational education and training in schools revenue, together with revenue associated with industry based skills centres, skill centres for school students and facilities for Aboriginal and Torres Strait Islander peoples, has been provided by ANTA.

Annual hours curriculum data used in calculating unit costs have been sourced from initial audit reports of non-financial activity prepared by the National Centre for Vocational Education Research, on behalf of ANTA.

DATA ADJUSTMENTS

Invalid enrolment factor

When students undertake vocational education and training programs, they enrol in a set of modules (subjects) or units of competency which make up the program. Administratively this usually involves completing an enrolment form, gaining approval from the provider, and fee transactions. The enrolment process is usually undertaken before classes start. For example, in TAFE institutes, most students enrol at the beginning of each year, or each semester; and they pay their fees at the same time. Fully on-the-job training is usually auspiced through a registered training organisation.

When training commences, some students do not participate in all of the modules or units of competency for which they are enrolled. In a small proportion of cases, they may decide not to start their training at all. More commonly however, students who have enrolled in, say, four modules might opt for, or are only able to take two or three within the year of data collection. The student record systems used by vocational education and training providers are sometimes unable to exclude abandoned modules or units of competency (or those not commenced in the year of data collection) when they report data to the National Centre for Vocational Education Research (NCVER). As a result, the data for each year contain a small number of subject enrolments where there is no evidence of participation for that particular enrolment, or where the enrolment has been created in error.

ANTA commissions the NCVER to annually audit enrolment data to identify these invalid enrolments and to determine the robustness of the data, as part of the 'growth derived from efficiencies' arrangements under the ANTA Agreement. The enrolment rates reported by NCVER to ANTA, and used in this report, applies only to training auspiced by TAFE providers.

Table D.28 shows the invalid enrolment rate for each State and Territory.

In determining the 1998 invalid module enrolment rate, the NCVER auditors were able to identify, for the first time, trainees whose training was fully on the job, but who had been included in the audit sample. Such instances where no training was delivered have been accounted for when determining the invalid enrolment rate, by discounting the recorded hours of training delivered. In 1999 fully on-the-job training is also included in the audit sample.

Table D.28: Adjustment factors for invalid enrolments: by State/Territory, 1998 and 1999 (per cent)

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
1998	6.77	7.90	5.43	4.10	3.17	9.74	7.18	8.24	6.44
1999	8.52	3.68	7.03	1.61	2.61	3.12	5.55	4.73	5.67

Source: annual audit reports of non-financial activity prepared for ANTA

GOVERNMENT RECURRENT EXPENDITURE

Government recurrent expenditure is now reported on an accrual basis as per the Australian Vocational Education and Training Management Information Statistical (AVETMIS) Standard. The formula for calculating government recurrent expenditure from data prepared under this Standard is:

Total operating expenditure

minus fee for service revenue

minus ancillary trading revenue

minus other operating revenues

minus revenue from specific purpose Commonwealth funds (ANTA & other).

These elements from the AVETMIS Standard for VET financial data are subject to audit from 1998 onwards. All 1998 information has been audited and updated from last year's report where appropriate.

To promote the comparability of the financial data between States and Territories, as well as comparability between the financial and activity data, the following adjustments have also been made:

- Commonwealth funded expenditure on vocational education and training in schools funded under a one-off arrangement over four years has been excluded
- redundancy payments funded externally to vocational education and training budgets has, as agreed with States and Territories, been excluded
- skill centre capital revenue receipted within States and Territories as operating funds has been excluded. This revenue amounted to $15m in 1999 for industry based skill centres, skill centres for school students, and facilities for Aboriginal and Torres Strait Islander peoples.

ACTIVITY DATA

Activity data means Annual Hours Curriculum (AHC) that are publicly funded according to the ANTA Agreement. To promote comparability of activity data, the following adjustments have been made:

- total activity has been adjusted for both invalid enrolments (based on information supplied by the National Centre for Vocational Education Research non-financial activity audit) and for the course mix weighting factor. The course mix weighting factor has used the same training area weights established by the Unit Cost Working Party (see the additional notes below) with factors for each jurisdiction updated to reflect the revised planned distribution of activity in 1999.
- the adjustment for invalid enrolments includes, where applicable, an adjustment for enrolments (such as missing marks) which have not been reported by training organisations, even though there has been some attendance or submission of work by the student.
- for enrolments that have as their outcome the recognition of prior learning, hours have been determined using the formula of five hours plus 10% of module curriculum hours, to a maximum of 10 hours. For modules of less than five curriculum hours, the full curriculum hours are used.
- Commonwealth funding of additional, conditional trainees has been rolled into base recurrent expenditure from 1998 onwards. Accordingly, all trainee activity is included in 1999 and 1998 when calculating comparative unit costs.
- The full nominal hours associated with fully on-the-job trainees are also included on the proviso that:
  - the training and assessment undertaken on the job is auspiced by a Registered Training Organisation
  - a Registered Training Organisation moderates the assessment
  - a Registered Training Organisation issues the qualifications
  - funds from the State/Territory training authority are contributed in support of these activities.

ADDITIONAL NOTES

National cost relativities

The following national cost relativities continue to be used to determine the course mix weightings for each State and Territory.

Table D.29: National vocational education and training cost relativities: by training area

Training area	Weight
Category A	
Arts, entertainment, sports and recreation	1.03
Automotive	1.33
Building and construction	1.16
Community services, health and education	0.91
Finance, banking and insurance	0.68
Food processing	1.14
Textiles, clothing, footwear and furnishings	1.18
Communications	1.16
Engineering and mining	1.28
Primary industry	1.12
Process manufacturing	1.16
Sales and personal service	0.94
Tourism and hospitality	1.10
Transport and storage	1.20
Utilities	1.29
Category B	
Business and clerical	0.79
Computing	0.84
Science, technical and other	1.06
Category C	
General education and training	0.85
Total	1.00

Source: Derived by Australian National Training Authority from information provided by the Unit Cost Working Party

COMPARISON OF EFFICIENCY PERFORMANCE FROM 1997 TO 1999 (IN 1999 PRICES)

Table D.30 provides detailed calculations of efficiency performances between 1997 to 1999.

Table D.30: Efficiency performance calculations: by State/Territory, 1997, 1998 and 1999 (1999 prices)

1997	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
Government recurrent expenditure ($m)	1,190.29	653.63	533.91	235.71	299.43	75.64	55.83	69.25	3,113.69
Government recurrent expenditure in 1999 prices ($m)	1,216.25	667.88	545.55	240.85	305.96	77.29	57.04	70.76	3,181.59
AHC (m)	89.512	68.861	39.314	15.619	22.001	4.570	2.567	4.651	247.095
Invalid enrolment (%)	7.15	8.89	8.29	3.58	10.44	15.36	21.15	10.34	8.23
Adjusted AHC (m)	83.014	63.185	36.312	15.329	19.723	3.941	2.033	4.254	227.791
Course mix weighting	0.97	1.01	1.01	1.01	1.03	1.03	0.98	0.97	1.00
$ / adjusted AHC (course-mix weighted)	15.04	10.45	14.86	15.58	15.12	18.97	28.75	17.21	13.97
1998	**NSW**	**Vic**	**Qld**	**SA**	**WA**	**Tas**	**NT**	**ACT**	**Aust**
Government recurrent expenditure ($m)	1,233.41	696.51	525.35	232.27	307.76	75.05	61.96	74.83	3,207.13
Government recurrent expenditure in 1999 prices ($m)	1,242.78	701.80	529.34	234.03	310.10	75.62	62.43	75.40	3,231.51
AHC (m)	88.295	72.726	44.832	17.311	22.782	4.728	2.507	4.684	257.865
Invalid enrolment (%)	6.77	7.90	5.43	4.10	3.17	9.74	7.18	8.24	6.44
Adjusted AHC (m)	83.013	67.533	42.719	16.899	22.099	4.329	2.340	4.429	243.360
Course mix weighting	0.98	1.00	1.01	1.02	1.05	1.05	0.96	0.99	1.00
$ / adjusted AHC (course-mix weighted)	15.29	10.40	12.28	13.58	13.39	16.59	27.72	17.11	13.18
1999	**NSW**	**Vic**	**Qld**	**SA**	**WA**	**Tas**	**NT**	**ACT**	**Aust**
Government recurrent expenditure ($m)	1,227.80	683.02	532.66	242.08	327.02	77.19	60.49	67.34	3,217.60
AHC (m)	93.332	74.752	43.097	20.480	24.576	4.783	3.214	4.690	268.924
Invalid enrolment (%)	8.52	3.68	7.03	1.61	2.61	3.12	5.55	4.73	5.67
Adjusted AHC	86.251	72.396	40.181	20.458	23.991	4.697	3.066	4.561	255.601
Course mix weighting	0.98	1.01	0.99	1.01	1.05	1.04	1.00	0.98	1.00
$ / adjusted AHC (course mix weighted)	14.54	9.30	13.36	11.76	13.03	15.85	19.63	15.12	12.59

THE UNIT COST OF SUCCESSFUL COMPLETIONS

Table D.31 and D.32 show the detailed information that has been used to report the unit cost to government of a successful module or unit of competency completion in both government funded programs, and in all programs.

Table D.31: Data used to calculate government recurrent expenditure per hour of successful module completion in government-funded programs, 1999: by State/Territory

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
Student assessed - passed (01)	57,841.972	45,072,235	26,721,604	15,627,128	15,417,318	3,180,143	2,046,011	3,018,964	168,925,375
Student not assessed - satisfactory completion of class hours (04)	5,502,312	2,890,218	2,194,199	558,587	684,784	54,121	945	175,770	12,060,936
Total (01 Funding source)	103,530,497	74,572,256	43,669,964	22,045,277	26,947,923	5,316,357	3,565,055	4,710,775	284,358,104
True total	86,250,786	72,395,937	40,181,415	20,458,132	23,990,878	4,696,985	3,066,376	4,560,979	255,601,452
Adjusted load completion (01+04) (to true total)	52,771,835	46,562,715	26,605,882	15,020,428	14,335,189	2,857,462	1,760,629	3,093,146	163,007,262
Course mix weighting	0.98	1.01	0.99	1.01	1.05	1.04	1.01	0.98	1.00
Adjusted load completion (to true total plus course mix)	51,669,717	47,217,388	26,398,659	15,117,728	14,999,668	2,963,414	1,769,306	3,019,659	163,007,262
Recurrent expenditure ($m)	1227.80	683.02	532.66	242.08	327.02	77.19	60.49	67.34	3217.60
$ per govt funded load completion in 1999 prices (course mix adjusted)	23.76	14.47	20.18	16.01	21.80	26.05	34.19	22.30	19.74

Table D.32: Data used to calculate government recurrent expenditure per hour of successful module completion in all programs, 1999: by State/Territory

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
Student assessed - passed (01)	63,237,002	52,895,255	33,546,588	17,065,337	16,592,748	4,383,895	2,256,896	3,387,285	193,365,006
Student not assessed - satisfactory completion of class hours (04)	6,258,404	4,622,195	2,500,589	1,288,133	2,033,033	59,356	945	194,390	16,957,045
Total	112,070,025	90,117,817	56,602,642	24,651,758	30,383,804	6,928,390	3,958,618	5,366,626	330,079,680
Course mix weighting	0.98	1.01	0.99	1.01	1.05	1.04	0.98	0.98	1.00
Adjusted load completion (course mix)	68,044,024	58,326,146	35,766,420	18,472,361	19,489,142	4,608,002	2,268,969	3,496,582	210,322,051
Recurrent expenditure ($m)	1227.80	683.02	532.66	242.08	327.02	77.19	60.49	67.34	3217.60
$ per all MLC in 1999 prices (course mix adjusted)	18.04	11.71	14.89	13.11	16.78	16.75	26.66	19.26	15.30

Notes to Tables D.30,D.31 and D.32:

To maximise comparability over time, activity data in 1997 has been adjusted to the same scope and boundary as that which applies in recent years.

Final audited expenditure figures for 1998 were not available for all jurisdictions for inclusion in last year's report. This report includes final audited expenditure for all jurisdictions in 1998 and for all jurisdictions in 1999. The 1998 audited expenditure figure for Queensland, in particular, was significantly different from that which was originally reported.

Queensland advises that approximately 1.26 million annual hours curriculum of government funded training conducted by private providers that commenced late in 1998 and continued over into 1999 was unable to be recognised as 1999 activity through the strict application of the AVETMIS standard.

FINDINGS OF THE COMMONWEALTH GRANTS COMMISSION

The Commonwealth Grants Commission advises the Commonwealth Government on cost differentials to be applied to States and Territories when distributing general revenue grants. The Commission analyses the factors that affect the cost of service provision in each State and Territory, and forms a judgement as to the resources that are required in each jurisdiction to provide a standard level of service at an average level of efficiency.

In their 1999 general revue of grant relativities, the Grants Commission established an assessment structure for vocational education and training expenditure that considered the impact of various factors within three broad components. These are:

- scale-affected expenditure (2.7% weighting), comprising administrative scale and input costs
- institutes (97.03% weighting), comprising sociodemographic composition, cross-border services, input costs, service delivery scale and dispersion
- isolation (0.27% weighting).

Table D.33 shows the 'category factor' determined for each State and Territory under this assessment structure. This factor provides a single index, which aggregates the combined affect of the factors observed in each jurisdiction.

Table D.33: Vocational education and training category factor, 1997-98: by State/Territory

NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
0.958	0.977	1.008	0.953	1.064	1.036	2.069	1.259	1.000

Student/teacher ratios are a major influence on vocational education and training system costs. Reasonable diversity of programs in low population areas results in student/teacher ratios significantly lower than those occurring in capital city and country metropolitan areas. Some jurisdictions with a significant proportion of delivery in low population areas believe that the Commonwealth Grants Commission does not adequately address this additional cost when determining factors for vocational education and training.

annual national report

PART E: GLOSSARY

1999

ABS	Australian Bureau of Statistics
Age	For participation data, a student's age is the difference in years between 30 June 1999 and their date of birth. Where only their year of birth has been reported, a birthday of 1 January is, in effect, assumed. For *Student Outcomes Survey* data, age is calculated in years at the survey reference date, 28 May 1999.
Annual Hours Curriculum (AHC)	The total number of hours of training delivered in a year, calculated by multiplying the approved number of curriculum hours for a module or unit of competency by the number of modules or units of competency delivered to the number of students in a traditional, supervised delivery setting. Changed in 1999 to *Nominal hours - supervised.*
ANTA	Australian National Training Authority
ANTA Agreement	The ANTA Agreement is a ministerial agreement between the Commonwealth, State and Territory governments that provides the basis for a joint partnership between governments, with industry, in the development and refinement of a national vocational education and training VET system
Apprentice and trainee	A student who has signed a formal agreement with an employer, known as either a training agreement or contract of training. See also *New Apprenticeships.*
Area of Learning	A classification (also known as Discipline Group Identifier) that describes the subject matter of the module or unit of competency. This is independent of the purpose of the primary subject matter of the course or qualification.
Australian Qualifications Framework or AQF	The Australian Qualifications Framework is a unified system of twelve national qualifications available in schools, vocational education and training and the higher education sector. Qualifications range from the senior secondary certificate of education (generally offered in schools) to doctoral degrees obtained through university study. The Framework links together all these qualifications and is a highly visible, quality-assured national system of educational recognition intended to promote lifelong learning and a seamless and diverse education and training system.
AVETMISS	The Australian Vocational Education and Training Management Information Statistical Standard, which specifies the scope and format for the national collection and reporting of vocational education and training data.
Client	A person undertaking vocational education and training. Also called a student.
Competency	*See Unit of Competency.*
Contracts of training	A contract between an employer and employee (apprentice or trainee) specifying the competencies to be developed over the period of the contract and the rights and obligations of each party. See also *New Apprenticeships.*

Course	A structured sequence of vocational education and training that leads to the acquisition of identified competencies; and includes assessment leading to a qualification or statement of attainment. See also *Qualification*.
Course mix weighting	Course mix weightings are used to adjust unit costs to account for training programs that are more or less expensive than the national average. Where the weighting in a jurisdiction is greater than one, the mix of training delivered by the jurisdiction is relatively more expensive than the national average.
Disability	For the *1999 Student Outcomes Survey*, a person was asked to report a disability if they had one or more of a visual disability, hearing disability, physical disability, intellectual disability, chronic illness or other disability. A disability is considered to be both significant and permanent, and it may affect the student's training performance.
Enrolment	The registration of a student with a training provider for the purpose of undertaking a course/qualification or module/unit of competency. The enrolment is considered valid only if all fee obligations have been met and the student has attended at least one lesson or there is evidence of student participation within that enrolment.
Equity groups	Categories of students currently identified as being most susceptible to under-participation and performance in vocational education and training.
Field of study	A classification of courses based on the similarity in terms of the vocational field of specialisation or the principal subject matter of the course.
Finn targets	Year 2001 vocational education and training participation rate targets for 19 and 22 year olds, set by ministers for vocational education and training. The targets are named after Brian Finn AO, the Chair of the committee that recommended the targets.
GDP	Gross domestic product.
Geographic region	Australia was subdivided into four geographical regions (capital cities, other metropolitan, rural and remote) for the purposes of reporting data on rural and remote students. To determine the student's location, their residential postcode was mapped to the regional classifications of the Department of Primary Industries and Energy and the Department of Education, Training and Youth Affairs. See also the technical notes in the appendix to KPM5.
Graduate	A student who completed a training course of at least 200 hours or one semester in duration at a TAFE provider in Australia in 1998.
Growth derived through efficiency	A framework within the current ANTA Agreement whereby the Commonwealth has agreed to maintain funding levels (in real terms) and States and Territories have agreed to achieve growth and identify ways to increase efficiency that are specific to their individual circumstances and histories of efficiency improvement.

Indigenous	Aboriginal or Torres Strait Islander person.
Industry group	Australian and New Zealand Standard Industrial Classification (ANZSIC) classification category.
Invalid enrolment	An enrolment that has been reported by a training organisation under AVETMISS even though there has been no confirmed attendance or evidence of student participation within that enrolment for the reporting year.
Key performance measure	Measures used to monitor the efficiency and effectiveness of the national vocational education and training system.
Labour force status	EMPLOYED People who during the reference period: - worked for one hour or more for pay, profit, commission or payment in a job or business on a farm, or - worked for one hour or more without pay in a family business or on a farm, or who had a job, business or farm, but were not at work. UNEMPLOYED People who were not employed during the reference period and who had actively looked for full time or part time work at any time during that time. NOT IN LABOUR FORCE People who were neither employed, nor unemployed as defined above. EMPLOYED FULL TIME People who were employed full time if they usually worked 35 hours or more a week in their main job during the reference period.
Load pass rate	The ratio of students who passed assessment in an assessable module or unit of competency to all students who were assessed and either passed, failed or withdrew. The calculation is based on the nominal hours supervised for each assessable module or unit of competency.
Module	A unit of training in which a student can enrol and may be assessed. See also *Unit of Competency*.
Module completers	Identified in the 1999 Student Outcomes Survey as TAFE students who successfully completed at least one module in 1998 in a stream of study between 2100 and 4500, who were not graduates in that year and who had left the TAFE system at the time of the survey.
Module outcome	*See Outcome.*
NCVER	National Centre for Vocational Education Research Ltd.
New Apprenticeships	Government supported structured work and training programs in which the employer is obliged to provide training, supervision and support; and the apprentice or trainee is obliged to undertake paid work as well as do the training. These obligations are specified in a training agreement or contract of training.
Nominal hours- supervised	The anticipated hours of learning or training deemed necessary to adequately present the educational material associated with the delivery of a training program when delivered in standard classroom delivery

	mode. These hours are generally specified in the curriculum documentation and do not include hours associated with work experience, industry placement, or field placement. See also *Annual Hours Curriculum (AHC).*
Non-English speaking background	For participation data, a person's background is based on their country of birth. Countries classified as speaking English are Australia, New Zealand, United Kingdom and Ireland, England, Scotland, Wales, Northern Ireland, Channel Islands, Isle of Man, Ireland, Canada, United States of America. For the *1999 Student Outcome Survey*, a person was classified as having a non-English speaking background if they answered yes to either, 'Do you speak a language other than English in your home?' or, 'Do either of your parents speak a language other than English as their first language?
Occupational groupings	The Australian Standard Classification of Occupations is used for occupational groupings. This is an Australian Bureau of Statistics classification which identifies occupations according to their primary purpose.
OECD	Organisation for Economic Cooperation and Development.
Outcome	A classification that describes the types of outcome which may be attained as a result of a client undertaking a module enrolment or unit of competency.
Participation rates	The ratio of the number of students in a defined subgroup of all those doing vocational education and training, to a subgroup of the Australian population with the same characteristics.
Pass rates	See *Load pass rate.*
Program type	Programs are classified as 'vocational' or 'not vocational' , according to whether the program is intended to develop skills of relevance to the workplace. Courses/qualifications are classified according to their *VET Flag*. Module/unit of competency only enrolments are also classified as 'vocational' according to their *VET flag*. See *VET Flag.*
Qualification	A recognised award granted to an individual upon successful completion of a course or Training Package qualification. See also Australian Qualifications Framework.
Recognition of prior learning (RPL)	An assessment process through which students may gain formal recognition for the skills they already have.
Registered Training Organisation (RTO)	Vocational education and training provider (including publicly funded TAFE institutes) registered by a State or Territory training authority to issue Australian Qualifications Framework qualifications and statements of attainment.
Stream	A way of categorising a course according to its level of vocational outcome. Stream 1000 includes recreation, leisure and personal enrichment courses where the main intention of the course is not vocational education and training. No longer collected from 1999 - see *VET Flag.*

Student	A person undertaking vocational education and training. Also called a client.
Student Enrolment No Participation	A student reported under AVETMISS where there is no confirmed class attendance or participation in any of their enrolments within the reporting year.
Student Outcomes Survey	A national survey of module completers and graduates of publicly funded TAFE providers designed to assess student employment outcomes and prospects before and after participation in vocational education and training.
Survey of Employer Views on VET	A national survey of two types of employer: those with recent VET graduate employees and those with no VET graduate employees. In this survey, recent VET graduates completed a VET qualification in the two years prior to the survey. The survey collects employer views on VET in order to obtain the industry perspective on the availability, relevance and quality of VET delivery.
TAFE Providers	Technical and Further Education providers that are publicly owned Registered Training Organisations, except in Victoria, where TAFE includes all Registered Training Organisations.
Training Package	A Training Package contains industry competency standards, guidelines for assessment and qualifications that result from successful assessment. It can also contain training and assessment resources. As they are developed, Training Packages are becoming the basis for all government funded training. New Apprenticeships are based on Training Packages.
Unit cost	A measure of efficiency that reports the average cost of producing a training output. Unit cost is currently calculated by dividing government recurrent expenditure by adjusted Annual Hours Curriculum.
Unit of competency	The basic unit in the competency standards framework. A unit of competency is the smallest unit that can be assessed and recognised in the vocational education and training system.
VET	Vocational education and training
VET Flag	A flag in AVETMISS that indicates whether or not the training program (course/qualification or module/unit of competency) is vocational. See *Stream*
Vocational programs	Programs intended to develop skills of relevance to the workplace. Defined as those course/qualifications with vocational intent and those module/unit of competency enrolments not associated with a course/qualification with vocational intent.

Australian National Training Authority
AMP Place 10 Eagle Street Brisbane Queensland 4000
GPO Box 3120 Brisbane Queensland 4001
Telephone: (07) 3246 2300 Facsimile: (07) 3246 2490
Website: https://www.anta.gov.au

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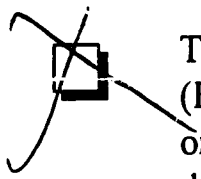

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